

**UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION**

SUSAN CHRISTENSEN,  
VICTORIA STILZ,  
WILLIAM EHLERS,  
CHEYENNE HAUSER,  
ANGELIKA KNOEBL,  
NATASHA HEIDLAGE,  
CASSIDY DEELY,  
GLENN LEE,

Individually and on behalf of all others  
similarly situated,

*Plaintiffs,*

vs.

THE BOEING COMPANY,

*Defendant.*

Civil Action No. 20-cv-

**CLASS ACTION COMPLAINT AND DEMAND FOR JURY TRIAL**

## TABLE OF CONTENTS

<b>NATURE OF THE ACTION.....</b>	<b>1</b>
<b>INTRODUCTION .....</b>	<b>3</b>
<b>PARTIES .....</b>	<b>5</b>
<b>JURISDICTION AND VENUE.....</b>	<b>7</b>
<b>FACTUAL ALLEGATIONS.....</b>	<b>8</b>
I. BOEING HID THE 737 MAX’S KNOWN DESIGN AND CONSTRUCTION DEFECTS IN A RUSH TO PRODUCTION. ....	8
A. Fearing loss of market share to rival Airbus, Boeing sought the fastest, cheapest solution.....	8
B. Boeing used the 737 legacy to cloak the 737 MAX in a fiction of familiarity.....	11
C. Boeing falsely promoted the 737 MAX as merely an update to the most recent 737 model.....	14
D. In its haste to produce the 737 MAX, Boeing side-stepped normal design safety protocol. ....	17
E. Boeing concealed a poorly-designed, computerized “fix” (MCAS) for physical and handling problems with the 737 MAX.....	19
II. BOEING TOOK ADVANTAGE OF ITS RELATIONSHIP WITH SOUTHWEST TO FILL ORDERS FOR HUNDREDS OF FAULTY 737 MAX PLANES. ....	31
A. For its entire 32 year history, Southwest has flown almost exclusively Boeing 737s...	31
B. Unaware of Boeing’s omissions, SWAFA trusted Boeing that the 737 MAX was safe.....	33
C. SWAFA, through their union, added the 737 MAX to their collective bargaining agreement with Southwest. ....	35
D. Southwest hired and trained additional flight attendants in anticipation of new 737 MAX deliveries from Boeing. ....	36
III. THE 737 MAX’S DEFECTS CONCEALED BY BOEING LED TO TWO FATAL CRASHES, KILLING 346 PEOPLE. ....	37
A. The MCAS onboard Lion Air 610 caused the plane to crash in October 2018. ....	37

B.	The MCAS onboard Ethiopian Airlines 302 caused the plane to crash in March 2019.	39
C.	Following the crashes, global regulatory and voluntary action resulted in a worldwide grounding of the 737 MAX that remains in effect to this day.	40
IV.	IN APRIL 2019, BOEING ADMITTED MCAS CAUSED THE FATAL CRASHES.	41
V.	THE 737 MAX IS NOW UNDER INTENSE REGULATORY SCRUTINY.	42
VI.	SOUTHWEST’S 737 MAX FLEET REMAINS GROUNDED.	46
VII.	BOEING KNEW IT WAS PUTTING CUSTOMERS, THEIR EMPLOYEES, AND THE PUBLIC IN HARM’S WAY.	47
VIII.	PLAINTIFFS HAVE BEEN HARMED SUBSTANTIALLY BY BOEING’S CONDUCT.	49
	<b>CLASS ACTION ALLEGATIONS</b>	<b>49</b>
	The Nationwide Southwest Airlines Flight Attendant Class	50
	Statewide Classes	50
	Class Certification is Appropriate	51
	Numerosity	51
	Commonality and Predominance	51
	Typicality	52
	Adequacy	53
	Superiority	53
	<b>CLAIMS FOR RELIEF</b>	<b>55</b>
	COUNT I	
	(Fraud by Non-disclosure)	55
	COUNT II	
	(Negligence)	57
	COUNT III	
	(Tortious Interference with Contractual Rights and Relationship)	60
	COUNT IV	
	(Tortious Interference with an Existing Business Relationship)	63
	COUNT V	
	(Fraudulent Misrepresentation)	67
	COUNT VI	
	(Negligent Misrepresentation)	69
	<b>PRAYER FOR RELIEF</b>	<b>72</b>
	<b>JURY TRIAL DEMAND</b>	<b>72</b>

Plaintiffs, Susan Christensen, Victoria Stiles, William Ehlers, Cheyenne Hauser, Angelika Knoebl, Natasha Heidlage, Cassidy Deely, and Glenn Lee (“Plaintiffs”), through their attorneys, file this Class Action Complaint individually and on behalf of all others similarly situated, and in support thereof, state as follows:

### **NATURE OF THE ACTION**

1. This Class Action Complaint seeks damages on behalf of approximately 17,000 Southwest Airlines Flight Attendants (“SWAFA”) who have individually and collectively lost, and continue to lose, income and other compensation as a direct result of The Boeing Company (“Boeing”)’s misconduct. Boeing concealed design and safety defects from its customers, including Southwest Airlines Company (“Southwest”), their employees (including SWAFA), and the public, which were known to Boeing concerning its 737 MAX aircraft. In addition to concealing the known design and safety defects, Boeing doubled down by misrepresenting to the world that the 737 MAX was a safe aircraft. Following two fatal crashes, the Federal Aviation Administration (“FAA”) grounded all 737 MAX planes, leaving SWAFA with thousands fewer flights to work than anticipated. Without knowing about these design and safety defects, Boeing’s customers and their employees (including SWAFA), reasonably relied on Boeing’s misrepresentations—that the 34 existing 737 MAX planes in Southwest’s fleet and approximately 20 more on order were safe and airworthy—by expanding and training the SWAFA workforce.

2. Boeing’s omissions, which relate directly to the certification, production, and delivery of 737 MAX aircraft and which constitute misrepresentations by Boeing to Stakeholders and the public, include, but are not limited to the following:

- a. Failure to disclose that the addition of the LEAP-1B® engines would change the 737 MAX’s center of gravity;

- b. Failure to disclose that the addition of the LEAP-1B® engines would decrease the 737 MAX's stability;
- c. Failure to disclose that the addition of the LEAP-1B® engines would negatively affect the 737 MAX's flight handling characteristics and make the aircraft more susceptible to the catastrophic risk of aerodynamic stall;
- d. Failure to disclose that the addition of the LEAP-1B® engines would create inherent safety risks in the 737 MAX;
- e. Failure to disclose that the 737 MAX did not handle like, and was dissimilar to, prior 737 generations, including the 737 NG, despite what Boeing was telling Stakeholders and the public, and despite what Boeing had told the FAA since 2012 in order to certify the 737 MAX as a new variant of the 737, rather than seek a new type certificate as would be required for a new aircraft, and which would delay production and delivery of the 737 MAX;
- f. Failure to disclose that the Maneuvering Characteristics Augmentation System ("MCAS") system was installed on the 737 MAX to address the inherent safety risks caused by the addition of the LEAP-1B® engines;
- g. Failure to disclose that the MCAS system installed on the 737 MAX relied on data input from only one angle-of-attack sensor, without providing any redundancy should that single angle-of-attack sensor fail or send erroneous data to the MCAS system;
- h. Failure to disclose to the FAA, Stakeholders, or the public that, in November 2016, during the test phase of the 737 MAX aircraft, Boeing test pilot, Mark Forkner, identified "egregious" problems with the 737 Max flight control systems (that later figured into the two 737 MAX crashes), specifically stating to fellow Boeing 737 MAX test pilot, Patrik Gustavsson, that, "The plane is trimming itself like crazy" [sic] and "I basically lied to the regulators (unknowingly)".<sup>1</sup>
- i. Failure to disclosure critical safety information, including, but not limited to, the specific operational procedures and limitations of the MCAS system, or that additional pilot training would be required to equip pilots to timely

---

<sup>1</sup> Chris Woodyard, *FAA asks Boeing why it hid test pilot's discovery of 'egregious' 737 MAX issues*, USA Today, October 18, 2019, <https://www.usatoday.com/story/news/nation/2019/10/18/boeing-737-max-faa-outraged-over-test-pilot-mcas/4024504002/>; David Gelles and Natalie Kitroeff, *Boeing Pilot Complained of 'Egregious' Issue with 737 MAX in 2016*, The New York Times, October 18, 2019, <https://www.nytimes.com/2019/10/18/business/boeing-flight-simulator-text-message.html>.

identify and address a potential malfunction of the MCAS system in order to prevent a catastrophic aerodynamic stall of the aircraft, as was experienced in the two crashes of the 737 MAX; and

- j. Failure to disclose in Boeing's FAA-mandated Safety System Analysis how the MCAS system could reset itself after each time a pilot responded to its nose-down command, causing not just a single downward movement of 2.5 degrees, but successive nose-down commands of 2.5 degrees each, that, without correction, after only two cycles of MCAS, could cause the 737 MAX to reach its maximum nose-down trim position, causing the pilot to lose control of the aircraft, and result in a crash into the ground.

3. "Stakeholders," as the term is used in this Complaint, includes Boeing's customers (airlines) and their employees (including pilots and flight attendants). Boeing itself designated Stakeholders as such when it invited representatives from the airlines, their pilots, and their flight attendants to a "Stakeholder" meeting following the deadly 737 MAX crashes.

## **INTRODUCTION**

4. Boeing made a calculated decision to rush its 737 MAX aircraft to market to secure its single-aisle aircraft market share and prioritize its bottom line. In doing so, Boeing abandoned sound design and engineering practices, withheld safety critical information from regulators, and misled Stakeholders and the public, about the true scope of design changes to the 737 MAX.

5. Boeing's omissions and misrepresentations caused Stakeholders to believe that it was to their economic advantage to purchase and operate the 737 MAX aircraft and that these aircraft were safe.

6. Boeing made omissions and misrepresentations directly to Stakeholders and the public. The 737 MAX is now grounded worldwide because it is unsafe, unairworthy, and contrary to Boeing's representations, distinct from the 737 family of aircraft that preceded it.

7. Tragically, the economic losses sustained by SWAFA are not the only consequences of Boeing's omissions and misrepresentations about the 737 MAX aircraft.

Boeing's rushed introduction of the 737 MAX aircraft caused two fatal crashes within a five-month period – the Lion Air Flight 610 crash on October 29, 2018, which killed 189 people, and the Ethiopian Airlines Flight 302 crash on March 10, 2019, which killed 157 people.

8. Since those tragic crashes, it has become clear that Boeing's omissions and representations concerning the 737 MAX aircraft were material and/or false when they were made and that, contrary to what Boeing told Stakeholders and the public, those crashes were the direct result of Boeing prioritizing profit over safety.

9. Specifically, Boeing concealed the fact that the 737 MAX aircraft was not airworthy because, among other things, it incorporated a single-point failure condition – a software/flight control logic called MCAS – that, if fed erroneous data from a single angle-of-attack sensor, could command the aircraft to nose-down into an unrecoverable dive without pilot input or knowledge.

10. After a 737 MAX crashed for the second time within a five-month period and the death toll attributable to Boeing's defective design of MCAS nearly doubled, the world could no longer trust Boeing's representations that the 737 MAX was safe. As such, on March 13, 2019, the FAA grounded the 737 MAX for an indefinite period, and it remains grounded to this day.

11. SWAFA get paid per flight, a fact known to Boeing by virtue of its longstanding and significant role in the industry, not to mention its position as Southwest's sole aircraft supplier. Airlines make their staffing decisions based on the number of flights they can offer, which is directly tied to the number of safe aircraft they have or expect to have. Thus, when Boeing agrees to build and deliver aircraft to an airline, Boeing knows the airline will hire and train additional employees to service new flights to be offered on the new aircraft.

12. Boeing and SWAFA are not strangers. Boeing is well aware of SWAFA and vice versa. Boeing knows full well the material and direct consequence its actions can have on SWAFA.

13. In light of the FAA's grounding order, Southwest, the largest operator of the 737 MAX with 34 in scheduled flight and more than 20 additional aircraft that were to be delivered and incorporated into scheduled flight by the end of 2019, had to cancel thousands of flights, thus limiting SWAFA's ability to earn income.

14. To make matters worse for SWAFA, based on Boeing's representations that the 737 MAX was not only airworthy but the best aircraft in its class, Southwest hired and trained a significant number of additional flight attendants to work on the 20 new 737 MAX that were to be delivered over the next several years, thereby causing both experienced and new SWAFA to lose even more income due to fewer available aircraft and more flight attendants.

15. Boeing is liable to SWAFA for the damages they have sustained, and continue to sustain, as the direct and proximate result of Boeing's defective design of the 737 MAX and Boeing's omissions and false representations concerning the 737 MAX to Stakeholders and the public.

#### **PARTIES**

16. All Plaintiffs identified herein, and the proposed class members, were employed by Southwest as Flight Attendants as of the date that the FAA grounded the Boeing 737 MAX (March 13, 2019), and have suffered harm and actual damages as a direct and proximate result of the omissions and false representations made by Boeing concerning the 737 MAX aircraft to Stakeholders and the public.



17. Plaintiff Susan Christensen is a resident and citizen of Ohio and has been a Southwest Airlines Flight Attendant since 1996.

18. Plaintiff Victoria Stilz is a resident and citizen of Nevada and has been a Southwest Airlines Flight Attendant since 2014.

19. Plaintiff William Ehlers is a resident and citizen of Texas and has been a Southwest Airlines Flight Attendant since 2005.

20. Plaintiff Cheyenne Hauser is a resident and citizen of Texas and has been a Southwest Airlines Flight Attendant since 2017.

21. Plaintiff Angelika Knoebl is a resident and citizen of Colorado and has been a Southwest Airlines Flight Attendant since 2017.

22. Plaintiff Natasha Heidlage is a resident and citizen of Kentucky and has been a Southwest Airlines Flight Attendant since 2011.

23. Plaintiff Cassidy Deely is a resident and citizen of Kentucky and has been a Southwest Airlines Flight Attendant since 2016.

24. Plaintiff Glenn Lee is a resident and citizen of Florida and has been a Southwest Airlines Flight Attendant since 2011.

25. Defendant Boeing was, and still is, a corporation organized and existing under the laws of the State of Delaware. Boeing maintains its corporate headquarters in Chicago, Illinois, and its principal places of business in Chicago, Illinois, and Washington State. Boeing is an aerospace company involved in the design, manufacture, and sale of commercial aircraft and business jets.

## **JURISDICTION AND VENUE**

26. This Court has subject matter jurisdiction pursuant to the Class Action Fairness Act of 2005, 28 U.S.C. § 1332(d)(2), because this is a class action, including claims asserted on behalf of a nationwide class, filed under Rule 23 of the Federal Rules of Civil Procedure on behalf of approximately 17,000 Southwest Airlines Flight Attendants, and the amount in controversy exceeds the jurisdictional amount of \$5,000,000, exclusive of interest and costs.

27. This Court has personal jurisdiction over the Defendant because Defendant maintains its principle place of business and committed many of the omissions and acts complained of in the state of Illinois.

28. Venue is proper in the Northern District of Illinois pursuant to 28 U.S.C. §§ 1391(b)(1), 1391(b)(2), 1391(b)(3), 1391(c)(2) and 1391(d).

29. Specifically, venue is proper pursuant to 28 U.S.C. § 1391(b)(1) because Defendant effectively resides in this judicial district as Boeing's corporate headquarters and principal place of business are located in this judicial district at 100 North Riverside, Chicago, Illinois 60606. Venue is also proper in this district pursuant to 28 U.S.C. § 1391(b)(2) because a substantial part of the omissions and acts giving rise to the claims asserted occurred in this judicial district. Venue is also proper in this District pursuant to 28 U.S.C. §§ 1391(b)(3), 1391(c)(2) and 1391(d) because this Court also has personal jurisdiction over the Defendant in this judicial district resulting from Defendant conducting business at its corporate headquarters in this judicial district and committing many of the omissions and acts complained of in this judicial district as well.

## **FACTUAL ALLEGATIONS**

30. Plaintiffs incorporate by reference all preceding paragraphs of this Complaint, with the same force and effect as if set forth herein.

31. At all times mentioned herein, Boeing, and each of its officers, employees, agents, and servants named herein were operating and acting within the scope of their employment, agency and service, and Boeing was aware of, ratified, and approved the omissions, acts, and statements of each officer, employee, agent or servant. Each omission, act, or statement made by each named officer, employee, agent or servant of Boeing was in furtherance of Boeing's interest and substantially assisted Boeing's omissions and commission of the wrongful acts alleged.

### **I. BOEING HID THE 737 MAX'S KNOWN DESIGN AND CONSTRUCTION DEFECTS IN A RUSH TO PRODUCTION.**

#### **A. Fearing loss of market share to rival Airbus, Boeing sought the fastest, cheapest solution.**

32. Boeing has been manufacturing and selling the 737, a narrow-body, single-aisle aircraft, since it was first certified by the FAA on December 21, 1967.

33. Boeing's main competitor in the narrow-body market is, and at all relevant times herein has been, Airbus SE ("Airbus"), a European multinational aerospace corporation. Airbus manufactures the A320 family of narrow-body aircraft.

34. In 2010, Airbus announced the introduction of the Airbus A320 NEO ("A320 NEO") aircraft, a new engine variant of its popular A320 aircraft, which offered greater fuel efficiency than Airbus's prior generations of A320 aircraft and Boeing's 737 Next Generation ("737 NG") aircraft, which was Boeing's most recent 737 iteration at the time.

35. Following Airbus's announcement, Boeing considered, but rejected, the idea of introducing a new engine variant of its 737 aircraft and believed that it could wait to produce an aircraft to compete with the A320 NEO.

36. At a meeting in January 2011, Jim Albaugh, the former president of Boeing Commercial Airplanes, told Boeing employees that Boeing could wait until the end of the decade to produce a new plane from scratch rather than refit the most recent 737 NG with new engines. He further explained that the A320 NEO's use of a bigger, more fuel-efficient engine would be a "design change that will ripple through the airplane."<sup>2</sup>

37. Subsequently, Boeing learned that American Airlines, which was an exclusive Boeing customer for more than a decade, was considering the purchase of 200 Airbus A320 NEOs.

38. Rather than designing a new aircraft, Boeing immediately reversed course and launched its own new engine variant of the existing, widely flown and time-tested 737 NG. To make the new 737 more fuel efficient, and therefore competitive with the new A320 NEO, the 737 NG's engines were to be replaced with the larger, more fuel-efficient CFM International LEAP-1B® (the "LEAP-1B®") engine.<sup>3</sup>

39. A former senior Boeing official stated that the company opted to mount the new LEAP-1B® engines on Boeing's existing 737 NG airframe rather than an entirely new airframe

---

<sup>2</sup> David Gelles et al., *Boeing Was 'Go, Go, Go' to Beat Airbus With the 737 Max*, The New York Times (2019), <https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html>.

<sup>3</sup> *Id.*; see also Andy Pasztor, et al., *How Boeing's 737 MAX Failed*, The Wall Street Journal, March 27, 2019, <https://www.wsj.com/articles/how-boeings-737-max-failed-11553699239>; Andrew Tangel, et al., *The Four-Second Catastrophe: How Boeing Doomed the 737 Max*, The Wall Street Journal, August 16, 2019, <https://www.wsj.com/articles/the-four-second-catastrophe-how-boeing-doomed-the-737-max-11565966629>.

because it would be “far quicker, easier, and cheaper than starting from scratch and would provide almost as much fuel savings for airlines.”<sup>4</sup>

40. In August 2011, Boeing’s Board of Directors authorized the launch of a new iteration of 737 aircraft to compete with the A320 NEO—the “MAX” series.

41. On August 30, 2011, Boeing announced the launch of the 737 MAX.<sup>5</sup> In its launch announcement, Boeing emphasized the 737 MAX’s connection to the 737 product line’s service history explaining that “[w]e call it the 737 MAX because it optimizes everything we and our customers have learned about designing, building, maintaining and operating the world’s best single-aisle airplane.”<sup>6</sup>

42. In its launch announcement Boeing asserted, among other things, that:

- a. “The 737 MAX will deliver big fuel savings that airlines will need to successfully compete in the future. Airlines will benefit from a 7 percent advantage in operating costs over future competing airplanes as a result of optimized CFM International LEAP-1B® engines, more efficient structural design and lower maintenance requirements”; and
- b. “Airlines will continue to benefit from maximum reliability. The 737 MAX will build upon the Next-Generation 737’s highest reliability performance of any airplane in the world – 99.7 percent on-time departure rate.”<sup>7</sup>

---

<sup>4</sup> David Gelles et al., *Boeing Was ‘Go, Go, Go’ to Beat Airbus With the 737 Max*, The New York Times (2019), <https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html>; see also *How Boeing’s 737 MAX Failed*, The Wall Street Journal, March 27, 2019, <https://www.wsj.com/articles/how-boeings-737-max-failed-11553699239>; Andrew Tangel, et al., *The Four-Second Catastrophe: How Boeing Doomed the 737 Max*, The Wall Street Journal, August 16, 2019, <https://www.wsj.com/articles/the-four-second-catastrophe-how-boeing-doomed-the-737-max-11565966629>.

<sup>5</sup> The Boeing Company, *Boeing Introduces 737 MAX With Launch of New Aircraft Family*, August 30, 2011, <https://boeing.mediaroom.com/2011-08-30-Boeing-Introduces-737-MAX-With-Launch-of-New-Aircraft-Family>.

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

43. Boeing's 737 MAX launch announcement did not disclose that, as compared to the most recent 737 NG, the addition of the LEAP-1B® engines would, among other things:

- a. Change the aircraft's center of gravity;
- b. Decrease aircraft stability;
- c. Negatively affect flight handling characteristics to make the aircraft more susceptible to the catastrophic risk of aerodynamic stall; and
- d. Create inherent safety risks.

44. When an airframe is designed, engineers consider the specifications of the engine that will be used, take that engine's weight and size into account, and determine the ideal mounting point and placement to assure that the aircraft has a stable aerodynamic center of gravity.

45. Boeing's announcement did not mention the inherent risks created by adding the LEAP-1B® engines to an existing airframe designed to accommodate smaller, less powerful engines.

46. Boeing eschewed the opportunity to properly engineer the 737 MAX and instead made the decision to fit the new, larger engine on an existing airframe, thereby creating inherent risks that Boeing would later attempt and fail to mitigate.

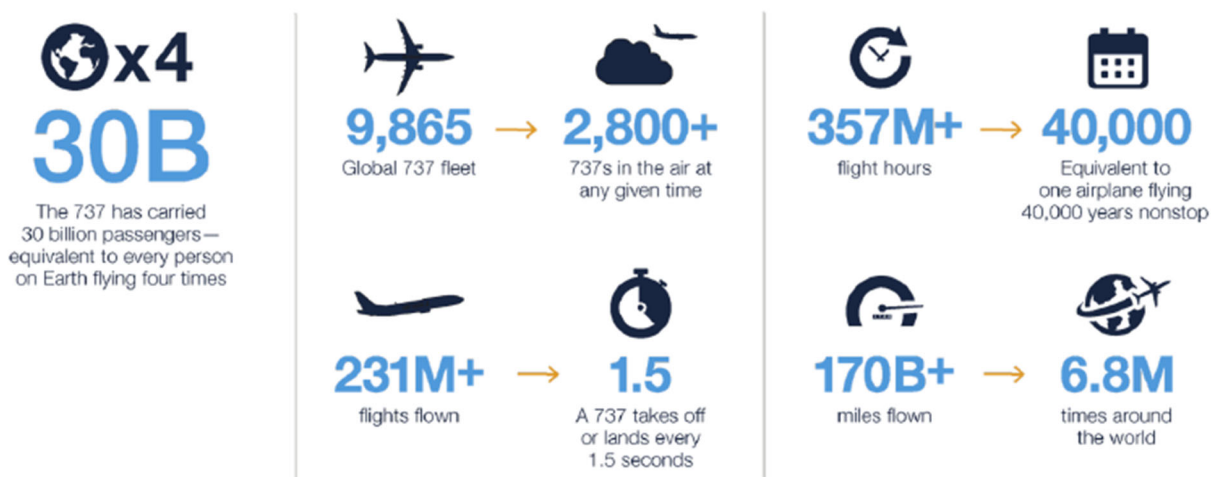
**B. Boeing used the 737 legacy to cloak the 737 MAX in a fiction of familiarity.**

47. From its inception, Boeing marketed the 737 MAX family as the newest variant of its 737 family of aircraft, specifically a new version of what was then the latest 737 model, the 737 NG.

48. Boeing's website featured a page marketing the 737 MAX entitled "The Legacy and Strength of the Boeing 737 Family," which boasted that reliability, safety, and simplicity of

design had been the hallmarks of the 737 family since its inception in 1967 and would continue with the 737 MAX.<sup>8</sup>

49. Boeing also presented the following infographic to highlight the 737's extensive in-service history:<sup>9</sup>



50. In other words, Boeing was specifically marketing the 737 MAX based on the 737 family's long track record for safety without disclosing the safety-critical changes that made the MAX a fundamentally different aircraft from prior generations of the 737 family.

51. For example, a November 3, 2011 Boeing press release announcing 737 MAX design changes described the MAX as a "new-engine variant" and reminded the public and potential customers and operators that "[t]he Boeing 737 is the world's most popular and reliable commercial jet transport."<sup>10</sup>

---

<sup>8</sup> The Boeing Company, *737 MAX Updates*, <https://www.boeing.com/commercial/737max/737max-legacy.page>.

<sup>9</sup> See *Id.*

<sup>10</sup> The Boeing Company, *Boeing Updates 737 MAX Engine Configuration Status and Customer Commitments*, November 3, 2011, <https://boeing.mediaroom.com/2011-11-03-Boeing-Updates-737-MAX-Engine-Configuration-Status-and-Customer-Commitments>.

52. A February 12, 2012 press release discussing the final phase of 737 MAX wind tunnel testing described the MAX as “a new engine variant of the world’s best-selling airplane [that] builds on the strengths of today’s NEXT-Generation 737.”<sup>11</sup>

53. An April 11, 2012 press release disclosed the changes from the 737 NG to the 737 MAX, including an extension of the tail con, integration of the LEAP-1B® engines with the wing, a new pylon and strut, nose gear extension, and flight control and system updates such as fly-by-wire spoilers and an electronic bleed air system.<sup>12</sup>

54. In this same statement, Boeing’s 737 MAX Chief Project Engineer characterized the allegedly limited changes to the MAX and assured the public that “[a]ny new technology incorporated into the MAX design must offer substantial benefit to our customers with minimal risk for the team to pursue it.”<sup>13</sup>

55. In each of these above statements, Boeing concealed that the use of LEAP-1B® engines and their placement on the airframe rendered the 737 MAX distinct from its 737 predecessors and that the design changes advertised did not disclose the full scope of differences between the 737 NG and the 737 MAX.

---

<sup>11</sup> The Boeing Company, *Boeing to Begin Final Phase of 737 MAX Wind Tunnel Testing*, February 12, 2012, <https://boeing.mediaroom.com/2012-02-12-Boeing-to-Begin-Final-Phase-of-737-MAX-Wind-Tunnel-Testing>.

<sup>12</sup> The Boeing Company, *Boeing Makes 737 MAX Design Decisions*, April 11, 2012, <https://boeing.mediaroom.com/2012-04-11-Boeing-Makes-737-MAX-Design-Decisions>.

<sup>13</sup> *Id.*



56. In an October 29, 2013 press release, Boeing echoed its prior marketing efforts, stating, “[W]e are being very deliberate about any changes we make to airplane systems on the 737 MAX to make the airplane even easier to operate.”<sup>14</sup>

57. Yet again, Boeing concealed the truth.

C. **Boeing falsely promoted the 737 MAX as merely an update to the most recent 737 model.**

58. Boeing purported to ensure that the disclosed changes from the 737 NG to the 737 MAX were minor, would not drive additional costs, and would not require additional pilot training.

59. Rick Ludtke, an employee at Boeing for 19 years and an engineer who helped design the 737 MAX cockpit, explained that “[a]ny designs we created could not drive any new [pilot] training that required a simulator.”<sup>15</sup>

60. As Ludtke described: “The company was trying to avoid costs and trying to contain the level of change. They wanted the minimum change to simplify the training differences, minimum change to reduce costs, and to get it done quickly.”<sup>16</sup>

---

<sup>14</sup> The Boeing Company, *Boeing Continues to Improve 737 MAX Performance*, October 29, 2013, <https://boeing.mediaroom.com/2013-10-29-Boeing-Continues-to-Improve-737-MAX-Performance>.

<sup>15</sup> David Gelles et al., *Boeing Was ‘Go, Go, Go’ to Beat Airbus With the 737 Max*, The New York Times (2019), <https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html>; see also Andy Pasztor, et al., *How Boeing’s 737 MAX Failed*, The Wall Street Journal, March 27, 2019, Andrew Tangel, et al., *The Four-Second Catastrophe: How Boeing Doomed the 737 Max*, The Wall Street Journal, August 16, 2019, <https://www.wsj.com/articles/the-four-second-catastrophe-how-boeing-doomed-the-737-max-11565966629>.

<sup>16</sup> David Gelles et al., *Boeing Was ‘Go, Go, Go’ to Beat Airbus With the 737 Max*, The New York Times (2019), <https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html>; see also Andrew Tangel, et al. *Prosecutors, Transportation Department Scrutinize Development of Boeing’s 737 MAX*, The Wall Street Journal, March 18, 2019, Andrew Tangel, et al., *The Four-Second Catastrophe: How Boeing Doomed the 737 Max*, The Wall Street

61. He described this difficult process, based on an existing airframe to be, “such a kludge,” that he and other engineers working on the MAX wondered during the design process whether it was safe to create the 737 MAX.<sup>17</sup>

62. He further debated whether the 737 MAX, with its new engine but existing airframe, was “a bridge too far.”<sup>18</sup>

63. The need to downplay the design changes made to the 737 MAX served at least two important business needs for Boeing.

64. First, Boeing was able to convince airline customers that costly and time-consuming training was not required because the 737 MAX was merely an update to the familiar 737 NG. This would make the 737 MAX more competitive relative to the Airbus A320 NEO, more profitable for Boeing, and cheaper for customers to operate.

65. According to Ludtke, Boeing agreed to rebate Southwest \$1 million per 737 MAX aircraft if the FAA required simulator training for the 737 MAX that airlines themselves typically pay for when introducing new models of aircraft.<sup>19</sup>

66. With Southwest’s eventual order of over one hundred (100) 737 MAX aircraft, any new simulator training could have cost Boeing \$100 million from Southwest alone.

---

Journal, August 16, 2019, <https://www.wsj.com/articles/the-four-second-catastrophe-how-boeing-doomed-the-737-max-11565966629>.

<sup>17</sup> Mike Baker & Dominic Gates, *Lack of Redundancies on Boeing 737 MAX System Baffles Some Involved in Developing the Jet*, The Seattle Times, March 26, 2019, <https://www.seattletimes.com/business/boeing-aerospace/a-lack-of-redundancies-on-737-max-system-has-baffled-even-those-who-worked-on-the-jet/>.

<sup>18</sup> *Id.*

<sup>19</sup> Maureen Tkacik, *Crash Course: How Boeing’s Managerial Revolution Created the 737 MAX Disaster*, The New Republic, September 18, 2019, <https://newrepublic.com/article/154944/boeing-737-max-investigation-indonesia-lion-air-ethiopian-airlines-managerial-revolution>.

67. Second, presenting the 737 MAX merely as an update to the 737 NG made it possible for Boeing to pursue an amendment to its FAA Type Certificate No. A16WE for the 737, which was originally granted in 1967. Applying for a new type certificate would have taken years longer than amending the original 737 type certificate, would have cost Boeing far more, and would have garnered more intense FAA scrutiny.

68. As such, on January 27, 2012, Boeing petitioned the FAA for certification of the 737 MAX as an amendment to Type Certificate No. A16WE.<sup>20</sup>

69. The FAA reviewed Boeing's application in February 2012, and based on the omissions and misrepresentations in Boeing's application – namely that the 737 MAX would be sufficiently similar to prior generations of 737 aircraft already included on the same type certificate – determined that the MAX project qualified for an amended type certificate rather than a new type certificate.

70. The FAA also determined that the 737 MAX certification could be managed by Boeing under the FAA's Organization Designation Authorization ("ODA") program, which delegates certification authority from the FAA to the manufacturer, in this case, Boeing.

71. From the FAA's then-mistaken point of view, and Boeing's widely disseminated point of view, the 737 MAX design "had minor changes to the 737 Next Generation design,"<sup>21</sup> meaning that the use of a type certificate amendment and the ODA program were appropriate given the purported similarities between the 737 NG and 737 MAX. Boeing had misrepresented to the

---

<sup>20</sup> The Boeing Company, Models 737-700, -700C, -800, -900ER, -7, -8, and -9 Series Airplanes; Airplane Electronic Systems Security Protection from Unauthorized External Access. 79 Fed. Reg. 32,640 (proposed June 6, 2014).

<sup>21</sup> *Airworthiness Certification*, [https://www.faa.gov/licenses\\_certificates/aircraft\\_certification/airworthiness\\_certification/](https://www.faa.gov/licenses_certificates/aircraft_certification/airworthiness_certification/).

FAA (and thereby to the public as a whole) that the 737 MAX was a variant of the prior versions of the 737 family of aircraft, including the 737 NG, when in fact it was a different aircraft altogether.

**D. In its haste to produce the 737 MAX, Boeing side-stepped normal design safety protocol.**

72. Boeing claims that it is “committed to being the leader in commercial aviation by offering airplanes and services that deliver superior design, efficiency and value to customers around the world.”<sup>22</sup>

73. However, in the rush to get the 737 MAX certified and to market on a timeline that could compete with the A320 NEO, Boeing’s leadership placed exceptional pressure on its engineers to produce a finished product quickly.

74. Several of the engineers and designers working on the 737 MAX later described the artificially accelerated pace of the MAX’s development, stating that it was “extremely compressed ... It was go, go, go.”<sup>23</sup>

75. A former designer working on the 737 MAX’s flight controls described how the design team had at times produced 16 technical drawings a week, double the normal rate. The designer understood the message from management to be: “We need something now.”<sup>24</sup>

---

<sup>22</sup> The Boeing Company, *Our Company*, <https://www.boeing.com/company/>.

<sup>23</sup> David Gelles et al., *Boeing Was ‘Go, Go, Go’ to Beat Airbus With the 737 Max*, The New York Times (2019), <https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html>; see also Andrew Tangel, et al. *Prosecutors, Transportation Department Scrutinize Development of Boeing’s 737 MAX*, The Wall Street Journal, March 18, 2019, <https://www.wsj.com/articles/faas-737-max-approval-is-probed-11552868400>.

<sup>24</sup> David Gelles et al., *Boeing Was ‘Go, Go, Go’ to Beat Airbus With the 737 Max*, The New York Times (2019), <https://www.nytimes.com/2019/03/23/business/boeing-737-max-crash.html>.

76. A technician who assembled wiring on the 737 MAX stated that he received sloppy blueprints in the first few months of development and was told that the instructions for the wiring would be corrected later. He disclosed that internal assembly designs for the MAX included omissions.<sup>25</sup>

77. This process was different from standard procedures because normally such blueprints include intricate instructions.<sup>26</sup>

78. Upon information and belief, the unreasonable expectations placed on engineers and designers by Boeing's corporate business leadership created an environment ripe for mistakes and one wherein employees were reluctant to raise concerns that could have delayed certification and production of the 737 MAX.

79. Boeing's rushed time frame and its use of the FAA's ODA program authority enabled Boeing to hide from the FAA, operators, the public, and potential customers the safety-critical design changes on the 737 MAX that did not exist in prior 737 generations.

80. One of these safety-critical design changes, MCAS, did not come to light until the aircraft entered passenger service and caused the Lion Air 610 crash on October 29, 2018.

81. Other safety-critical design changes may remain hidden until tested in service after potential re-certification.

---

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

E. **Boeing concealed a poorly-designed, computerized “fix” (MCAS) for physical and handling problems with the 737 MAX.**

82. As set forth above, to compete with the A320 NEO, Boeing decided to add the new LEAP-1B® engine to its existing 737 NG airframe.

83. Adding these larger, heavier engines triggered design and engineering changes for the aircraft, the same ripple effect that James Albaugh, Boeing’s then commercial airplanes chief executive, had predicted back in 2011 when criticizing Airbus’ A320 NEO.

84. Unlike with Airbus’ addition of a new, more fuel-efficient, engine on the A320 NEO, Boeing was not able to mount the new larger LEAP-1B® engines in the same location as the 737 NG engines because the airframe was too close to the ground.

85. To accommodate the new, larger engines, Boeing mounted them higher up and farther forward on the wing than the existing 737 NG engines. The weight and placement of the new engines, among other things:

- a. Changed the 737 MAX’s aerodynamic center of gravity;
- b. Decreased aircraft stability;
- c. Created a greater pitch-up tendency at elevated angles-of-attack; and
- d. Negatively affected the flight handling characteristics, making the 737 MAX more susceptible to the catastrophic risk of stall.

86. When the 737 MAX is in full thrust, such as during takeoff, the aircraft’s nose tends to point too far upward, which creates a risk of aerodynamic stall.

87. An aerodynamic stall occurs when an aircraft experiences a sudden reduction in lift as the pilot increases the wing’s angle-of-attack and exceeds its critical angle-of-attack. If not quickly corrected, a stall can lead to a loss of controlled flight and crash of the aircraft.

88. The 737 NG did not have the same risk of aerodynamic stall.

89. In early 2012, Boeing started to become aware of the 737 MAX's new handling characteristics and the problems they created, however, Boeing hid them from Stakeholders and the public.

90. The center of gravity change and the red flags it raised were first noticed on a model 737 MAX that was the size of an eagle and was being tested in a wind tunnel.<sup>27</sup>

91. Boeing's Chief Test Pilot, Ray Craig, also discovered an issue with the 737 MAX's high-speed handling qualities while conducting FAA-required evasive maneuvers in a simulator.

92. In other words, Boeing knew years ago, in the 737 MAX development's infancy—before Boeing had even produced a single plane—that the aircraft was not going to work as intended.<sup>28</sup>

93. To address the issue, Boeing developed a software solution, MCAS, which is a flight control logic system unique to the 737 MAX aircraft.<sup>29</sup>

---

<sup>27</sup> Maureen Tkacik, *Crash Course: How Boeing's Managerial Revolution Created the 737 MAX Disaster*, The New Republic, September 18, 2019, <https://newrepublic.com/article/154944/boeing-737-max-investigation-indonesia-lion-air-ethiopian-airlines-managerial-revolution>.

<sup>28</sup> Jack Nicas et al., *Boeing Built Deadly Assumptions Into 737 Max, Blind to a Late Design Change*, The New York Times, June 1, 2019, <https://www.nytimes.com/2019/06/01/business/boeing-737-max-crash.html>.

<sup>29</sup> *Id.*; see also Andrew Tangel & Andy Pasztor, *Regulators Found High Risk of Emergency After First Boeing MAX Crash*, The Wall Street Journal, July 31, 2019, <https://www.wsj.com/articles/regulators-found-high-risk-of-emergency-after-first-boeing-max-crash-11564565521>; Douglas MacMillan & Aaron Gregg, *Boeing's 737 Max Design Contains Fingerprints of Hundreds of Suppliers*, The Washington Post, April 5, 2019, [https://www.washingtonpost.com/steps-for-disabling-firefoxs-native-adblocker/2018/05/21/fb95bf4e-5d37-11e8-b2b808a538d9dbd6\\_story.html?utm\\_term=.8c5fedae8660](https://www.washingtonpost.com/steps-for-disabling-firefoxs-native-adblocker/2018/05/21/fb95bf4e-5d37-11e8-b2b808a538d9dbd6_story.html?utm_term=.8c5fedae8660); Anurag Kotoky & Kyunghye Park, *When Will Boeing 737 Max Fly Again and More Questions*, Bloomberg, June 16, 2019, <https://www.bloomberg.com/news/articles/2019-06-17/boeing-s-grounded-737-max-the-story-so-far-quicktake>.

94. Mr. Craig disliked automatic systems such as MCAS that take control from pilots and would have preferred a structural aerodynamic fix. Craig eventually relented because the need for such high-speed maneuvers was so rare that he believed that MCAS would rarely engage.<sup>30</sup>

95. The problems with Boeing's use of a software solution rather than structural fix became exacerbated when later, as described below, the software could not sufficiently correct for the problems the changes to the aircraft's center of gravity caused.

96. In the meantime, Boeing kept MCAS's existence and the reason for its existence a secret from Stakeholders and the public.

97. Indeed, Boeing did not disclose its addition of MCAS to the 737 MAX to anyone, including existing 737 operators, those with 737 MAX aircraft on order, potential customers or the public until 2018, after the crash of Lion Air Flight 610.

98. With MCAS in place, the 737 MAX program forged ahead toward its design milestones:

- a. Boeing began final wind tunnel testing in February 2012;
- b. Boeing achieved firm concept in October 2012;
- c. Boeing achieved firm configuration in July 2013;
- d. Boeing initiated ground testing of the LEAP-1B® engine in June 2014;
- e. Boeing began engine flight testing in May 2015;
- f. Boeing debuted the first assembled 737 MAX in December 2015; and
- g. Boeing began the next flight testing phase in January 2016.

---

<sup>30</sup> Jack Nicas et al., *Boeing Built Deadly Assumptions Into 737 Max, Blind to a Late Design Change*, The New York Times, June 1, 2019, <https://www.nytimes.com/2019/06/01/business/boeing-737-max-crash.html>.



99. During this time, Boeing continued to market the 737 MAX as if it were just a more fuel-efficient version of the 737 NG, as opposed to the different aircraft it really is, and it continued to conceal the existence of MCAS.

100. On December 8, 2015, following the assembly of the first 737 MAX aircraft, Boeing Commercial Airplanes Vice President and General Manager Keith Leverkühn stated, “[O]ur team is upholding an incredible legacy while taking the 737 to the next level of performance.”<sup>31</sup>

101. After a successful first flight, Boeing’s Chief Production Pilot, Ed Wilson, stated, “[t]he 737 Max just felt right in flight giving us complete confidence that this airplane will meet our customers’ expectations.”<sup>32</sup>

102. As flight testing continued, Mr. Wilson and his co-pilot, Craig Bomben, began to notice that the 737 MAX was not handling like the 737 NG when nearing aerodynamic stalls at low air speeds.

103. Specifically, the control forces required to pull the column (yoke) back were too low and could cause the airplane to stall, and the forces required to push the column forward to increase speed and recover from a stall were too high.<sup>33</sup>

---

<sup>31</sup> The Boeing Company, *Boeing Debuts First 737 MAX 8*, December 8, 2015, <https://boeing.mediaroom.com/Boeing-Debuts-First-737-MAX-8>.

<sup>32</sup> The Boeing Company, *Boeing Completes Successful 737 MAX First Flight*, January 29, 2016, <https://boeing.mediaroom.com/2016-01-29-Boeing-Completes-Successful-737-MAX-First-Flight>.

<sup>33</sup> Jack Nicas et al., *Boeing Built Deadly Assumptions Into 737 Max, Blind to a Late Design Change*, The New York Times, June 1, 2019, <https://www.nytimes.com/2019/06/01/business/boeing-737-max-crash.html>; see Scott McCartney, *Inside the Effort to Fix the Troubled Boeing 737 MAX*, The Wall Street Journal, June 5, 2019, <https://www.wsj.com/articles/testing-the-fix-for-the-troubled-737-max-11559772634>.

104. In other words, the 737 MAX did not handle like, and was dissimilar to, prior 737 generations, including the 737 NG, despite what Boeing was telling its operators, customers, potential customers, and the public, and despite what Boeing had told the FAA since 2012 in order to certify the 737 MAX as a new variant of the 737 rather than seek a new type certificate as would be required for a new aircraft.

105. The 737 MAX was more susceptible to an aerodynamic stall at low speeds than prior generations of 737s.

106. However, the technology on the older generations of 737 aircraft that enabled pilots to manually control the aircraft by pulling back on the control column was disabled in the 737 MAX when MCAS activated.

107. Notwithstanding its growing awareness of the inherent risks introduced by its design of the 737 MAX, Boeing continued to conceal this necessary safety information from everyone. For example, on July 26, 2016, Boeing presented a flight demonstration video at an Air Show in Oshkosh, Wisconsin. In connection with that demonstration, Boeing again touted the MAX's LEAP-1B® engines without mentioning their unintended side-effects, stating, "The 737 MAX incorporates the latest technology CFM International LEAP-1B® engines . . . to deliver the highest efficiency, reliability and passenger comfort in the single-aisle market."<sup>34</sup>

108. Meanwhile, Boeing engineers scrambled to find a fix for the 737 MAX's dangerous low-speed handling characteristics.<sup>35</sup>

---

<sup>34</sup> The Boeing Company, *Boeing Debuts 737 MAX Flight Demonstration Video at Oshkosh Air Show*, July 26, 2016, <https://boeing.mediaroom.com/news-releases-statements?item=129746>.

<sup>35</sup> Jack Nicas et al., *Boeing Built Deadly Assumptions Into 737 Max, Blind to a Late Design Change*, The New York Times, June 1, 2019, <https://www.nytimes.com/2019/06/01/business/boeing-737-max-crash.html>.

109. By March 2016, Boeing settled on a revision of the MCAS flight control logic system.

110. However, Boeing chose to omit key safeguards that had previously been included in earlier iterations of MCAS used on the Boeing KC-46A Pegasus, a military tanker derivative of the Boeing 767 aircraft.<sup>36</sup>

111. The engineers who created MCAS for the military tanker designed the system to rely on inputs from multiple sensors and with limited power to move the tanker's nose. These deliberate checks sought to ensure that the system could not act erroneously or cause a pilot to lose control. Those familiar with the tanker's design explained that these checks were incorporated because "[y]ou don't want the solution to be worse than the initial problem."<sup>37</sup>

112. The 737 MAX version of MCAS abandoned the safeguards previously relied upon. As discussed below, the 737 MAX MCAS had greater control authority than its predecessor, could continue to operate repeatedly upon activation, and relied on input from just one of the plane's two sensors that measure the angle of the plane's nose.

113. While the single-sensor version of MCAS was being developed, Boeing's Chief Test Pilot, Ray Craig, and other engineers, urged the company to study a backup system known as synthetic airspeed.<sup>38</sup> The synthetic airspeed system is used on Boeing's 787 Dreamliner and draws on several data sources to measure how fast an aircraft is flying. In doing so, it can detect when an

---

<sup>36</sup> Alison Sider et al., *Before 737 MAX, Boeing's Flight-Control System Included Key Safeguards*, The Wall Street Journal, September 29, 2019, <https://www.wsj.com/articles/before-737-max-boeings-flight-control-system-included-key-safeguards-11569754800>.

<sup>37</sup> *Id.*

<sup>38</sup> Natalie Kitroeff et al., *Boeing Engineer, in Official Complaint, Cites Focus on Profit Over Safety on 737 Max*, The New York Times, October 2, 2019, <https://www.nytimes.com/2019/10/02/business/boeing-737-max-crashes.html>.

angle-of-attack sensor is malfunctioning and prevent other systems, such as MCAS, from relying on that faulty information.

114. Curtis Ewbank, an engineer who worked on the development of the 737 MAX, explained that Boeing decided not to look into the use of a synthetic airspeed system because of its potential cost and effect on training requirements for pilots.<sup>39</sup>

115. Boeing's failure to implement a structural fix to the 737 MAX four years prior when the aircraft's instability was first discovered began to exacerbate the problem.

116. In its second iteration of MCAS, Boeing gave MCAS enough authority to autonomously move the aircraft tail's horizontal stabilizer to the full nose-down limit if MCAS determined a stall may be oncoming.<sup>40</sup>

117. Although this fix was intended to conform the 737 MAX's handling characteristics to the 737 NG, it introduced the risk that the stabilizer would overpower the pilots' ability to counter MCAS's nose-down command with nose-up movement to stop an uncontrollable dive toward the ground. The graphic below demonstrates the problem.<sup>41</sup>

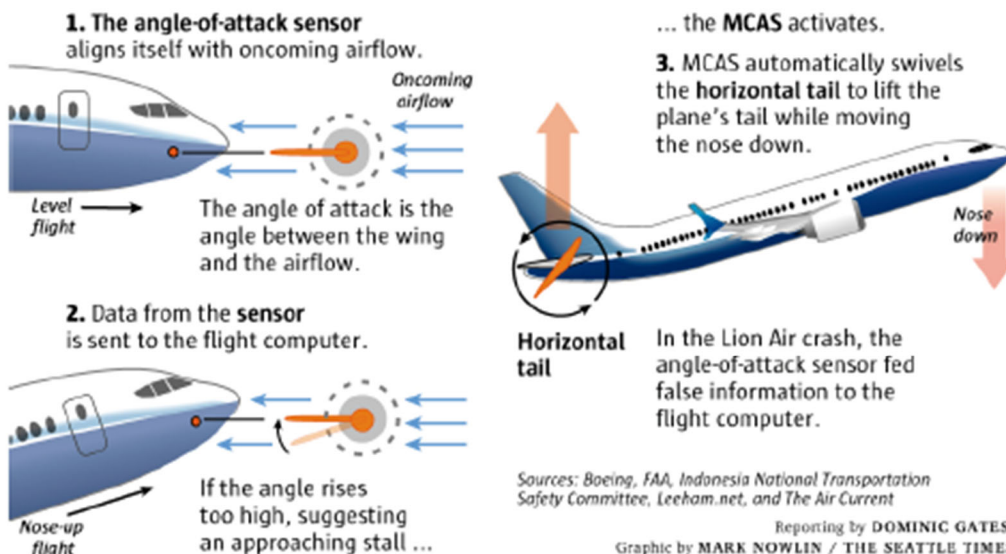
---

<sup>39</sup> *Id.*

<sup>40</sup> Dominic Gates, *Flawed analysis, failed oversight: How Boeing, FAA certified the suspect 737 MAX flight control system*, The Seattle Times, March 17, 2019, <https://www.seattletimes.com/business/boeing-aerospace/failed-certification-faa-missed-safety-issues-in-the-737-max-system-implicated-in-the-lion-air-crash/>; see also Andy Pasztor & Andrew Tangel, *Boeing's Latest 737 MAX Concern: Pilots' Physical Strength*, The Wall Street Journal, June 19, 2019, <https://www.wsj.com/articles/physical-strength-of-pilots-emerges-as-issue-in-returning-737-max-to-flight-11560937879>.

<sup>41</sup> Dominic Gates, *Flawed analysis, failed oversight: How Boeing, FAA certified the suspect 737 MAX flight control system*, The Seattle Times, March 17, 2019, <https://www.seattletimes.com/business/boeing-aerospace/failed-certification-faa-missed-safety-issues-in-the-737-max-system-implicated-in-the-lion-air-crash/>.

## How the MCAS (Maneuvering Characteristics Augmentation System) works on the 737 MAX



118. Further compounding its mistakes, Boeing submitted documentation to the FAA indicating that MCAS could move the horizontal tail a maximum of 0.6 degrees, which described the first iteration of MCAS.

119. However, at the time of certification in 2017, when Boeing was presenting the aircraft that would actually be delivered to customers, MCAS actually was capable of moving the tail 2.5 degrees, more than four times the 0.6 degrees stated in the initial safety analysis provided to the FAA.

120. Because Boeing had ODA authority to self-certify this aspect of the 737 MAX, Boeing was able to conceal this change from the FAA and never updated its documentation on this point.

121. Boeing's FAA-mandated System Safety Analysis for MCAS also failed to account for how MCAS could reset itself after each time a pilot responded to its nose-down command. This means that when MCAS malfunctioned, it would not just cause a single downward movement

of 2.5 degrees, but would nose-down command the aircraft 2.5 degrees lower several times in succession as the pilot tried to regain control. Without correction, two cycles of MCAS at the 2.5 degree limit could cause the aircraft to reach its maximum nose-down trim position, which could cause the pilot to lose control of the aircraft, and result in a crash into the ground.

122. Peter Lemme, a former Boeing flight controls engineer, explained that since MCAS can reset each time it is used, “it effectively has unlimited authority.”<sup>42</sup>

123. Based on the false representation that MCAS’s maximum authority was .6 degrees, Boeing’s System Safety Analysis submitted to the FAA incorrectly classified the MCAS as a “major failure” risk in normal flight and a “hazardous failure” risk in the event of an extreme maneuver, such as a banked descending spiral.

124. A “major failure” indicates that the system’s failure could cause physical distress to passengers, but not death. A “hazardous failure” could cause serious or fatal injuries to a small number of passengers. By contrast, a “catastrophic failure” risk, which is what MCAS really is, represents the potential for loss of the plane with multiple fatalities.

125. Yet Boeing’s website, press releases, annual reports, public statements and statements to operators and customers, submissions to the FAA and other civil aviation authorities, and 737 MAX flight manuals made no mention of the increased stall hazard or MCAS itself.

126. In fact, Boeing 737 Chief Technical Pilot, Mark Forkner, asked the FAA to delete any mention of MCAS from the pilot manual so as to further hide its existence from the public and pilots.<sup>43</sup>

---

<sup>42</sup> *Id.*

<sup>43</sup> Maureen Tkacik, *Crash Course: How Boeing’s Managerial Revolution Created the 737 MAX Disaster*, The New Republic, September 18, 2019,

127. Further, Boeing did not inform the FAA that a second iteration of MCAS existed.

128. Accordingly, Boeing failed to inform the FAA that, unlike the first iteration of MCAS, which likely would only operate in the event of a rare high-speed maneuver, the second iteration would operate to prevent potential low altitude, low speed stalls, which could occur far more frequently.

129. The risk profile and required risk assessment of the second iteration of MCAS was completely different from the first, and yet Boeing neither assessed that increased risk nor even attempted to mitigate it. Instead, Boeing used its ODA authority to hide this information.<sup>44</sup>

130. No such system existed in the 737 NG to which Boeing had so frequently compared the 737 MAX.

131. Further, Boeing designed MCAS to rely on data from only one angle-of-attack sensor instead of two or more. If data from that single angle-of-attack sensor was wrong, it could activate MCAS and force the aircraft into a dive when one is unnecessary, and potentially at altitudes that could – and did – result in a catastrophic system failure and crash.<sup>45</sup>

132. The reason for using only one angle-of-attack sensor is obvious: using two angle-of-attack sensors may have created a “disagree alert” when one sensor was feeding false data, a

---

<https://newrepublic.com/article/154944/boeing-737-max-investigation-indonesia-lion-air-ethiopian-airlines-managerial-revolution>.

<sup>44</sup> Troy Wolverton, *Boeing reportedly kept the FAA in the dark about big changes it made to the 737 Max's flight-control software late in its development*, Business Insider, July 27, 2019, <https://www.businessinsider.com/boeing-737-max-flight-system-faa-oversight-2019-7>.

<sup>45</sup> Dominic Gates, *FAA Cautions Airlines on Maintenance of Sensors that were Key to 737 Max Crashes*, The Seattle Times, August 20, 2019, <https://www.seattletimes.com/business/boeing-aerospace/faa-cautions-airlines-on-maintenance-of-sensors-that-were-key-to-737-max-crashes/>.

problem that may have required the additional pilot training Boeing was so desperately seeking to avoid.<sup>46</sup>

133. The problem with using only one angle-of-attack sensor was compounded by the fact that the angle-of-attack sensor was mounted on the aircraft fuselage, just behind the nose, where it is vulnerable to damage from jetbridges, ground equipment, and birds.

134. According to a review by Bloomberg, there have been at least 140 instances over the past 30 years wherein angle-of-attack sensors mounted in the same area were damaged.<sup>47</sup> By relying on data from only one angle-of-attack sensor, Boeing unreasonably risked a data feed from a damaged sensor.

135. Notwithstanding Boeing's failure to disclose MCAS to the FAA, operators, the public, customers and potential customers or correctly describe MCAS's nose-down trim command to the FAA, the MAX was added to Boeing's FAA 737 type certificate and approved for operations on March 9, 2017.

136. Despite its knowledge concerning the 737 MAX's stall risk, and of the risks associated with the incorporation of MCAS, when Boeing announced the 737 MAX's FAA certification on the same date, it again stated that "The 737 MAX incorporates the latest technology

---

<sup>46</sup> Maureen Tkacik, *Crash Course: How Boeing's Managerial Revolution Created the 737 MAX Disaster*, The New Republic, September 18, 2019, <https://newrepublic.com/article/154944/boeing-737-max-investigation-indonesia-lion-air-ethiopian-airlines-managerial-revolution>.

<sup>47</sup> Alan Levin & Ryan Beene, *Sensors Linked to Boeing 737 Crashes Vulnerable to Failure*, Bloomberg, April 10, 2019, <https://www.bloomberg.com/news/articles/2019-04-11/sensors-linked-to-737-crashes-vulnerable-to-failure-data-show>.



CFM International LEAP-1B® engines . . . to deliver the highest efficiency, reliability and passenger comfort in the single-aisle market.”<sup>48</sup>

137. As part of this statement, Boeing intentionally concealed any of the problems associated with the addition of the new engines or with MCAS.

138. Specifically, Boeing failed to disclose, among other things, the:

- a. Change in the aircraft’s aerodynamic center of gravity;
- b. Decrease in aircraft stability;
- c. Greater pitch-up tendency at elevated angles-of-attack;
- d. Negative change in aircraft handling characteristics;
- e. Increase in susceptibility to the risk of catastrophic stall; and
- f. Reliance on MCAS, a novel yet safety-critical flight control logic system with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

139. In fact, it was so important to Boeing that Stakeholders and the public believe that the 737 MAX was the same as prior generations of 737s that Boeing provided only a two-hour iPad training course to pilots before they entered the 737 MAX cockpit for the first time.<sup>49</sup>

140. As the spokesperson for the American Airlines’ pilots’ union noted after the first MCAS-caused crash, MCAS created a “huge difference” between the 737 MAX and prior generations of 737s.<sup>50</sup>

---

<sup>48</sup> The Boeing Company, *Boeing 737 MAX 8 Earns FAA Certification*, March 9, 2017, <https://boeing.mediaroom.com/2017-03-09-Boeing-737-MAX-8-Earns-FAA-Certification>.

<sup>49</sup> Natalie Kitroeff et al., *After 2 Crashes of New Boeing Jet, Pilot Training Now a Focus*, The New York Times, March 16, 2019, <https://www.nytimes.com/2019/03/16/business/boeing-max-flight-simulator-ethiopia-lion-air.html>.

<sup>50</sup> Jack Nicas, David Gelles & James Glanz, *Changes to Flight Software on 737 Max Escaped F.A.A. Scrutiny*, The New York Times, April 11, 2019, <https://www.nytimes.com/2019/04/11/business/boeing-faa-mcas.html>.

141. Deception Boeing's strategy with its other customers as well. Brian Lesko, the Chair of the Air Safety Organization Aircraft Design/Operations Group for the Air Line Pilots Association International (another pilot union), who is also a pilot for United Airlines, repeatedly asked Boeing if there were any new major systems on the 737 MAX in connection with an article that he was writing on changes between the 737 NG and the 737 MAX. Boeing repeatedly told him that there were no major changes.<sup>51</sup> Boeing's misrepresentations and concealments of MCAS thus were repeated throughout the industry.

## **II. BOEING TOOK ADVANTAGE OF ITS RELATIONSHIP WITH SOUTHWEST TO FILL ORDERS FOR HUNDREDS OF FAULTY 737 MAX PLANES.**

### **A. For its entire 32 year history, Southwest has flown almost exclusively Boeing 737s.**

142. Southwest and Boeing have been business allies since Southwest's inception 32 years ago, when Boeing helped Southwest begin operations with three 737-200 aircraft. Since that time, Southwest has faithfully remained an all-Boeing fleet.<sup>52</sup>

143. On November 30, 1984, Southwest took delivery of its first Boeing 737-300. Southwest became a "Launch Customer" of Boeing and by 2012 was the largest operator of Boeing 737 aircraft in the world.<sup>53</sup>

---

<sup>51</sup> Andy Pasztor, et al., *How Boeing's 737 MAX Failed*, The Wall Street Journal, March 27, 2019, <https://www.wsj.com/articles/how-boeings-737-max-failed-11553699239>.

<sup>52</sup> Elizabeth Davis, *32 Years of Luv – Partnership Between Southwest and Boeing 'Outrageously' Successful*, Boeing Frontiers, June 2003, Volume 02, Issue 02, [https://www.boeing.com/news/frontiers/archive/2003/june/i\\_ca2.html](https://www.boeing.com/news/frontiers/archive/2003/june/i_ca2.html).

<sup>53</sup> Funding Universe, *Southwest Airlines Co. – Company History, May 31, 2012*, <http://www.fundinguniverse.com/company-histories/southwest-airlines-co-history/>.

144. On January 19, 1994, Southwest signed a contract with Boeing to become the launch customer for the 737-700. Thereafter, Boeing delivered the first airplanes in December 1997. More than any other airline, Southwest was the impetus behind the newer 737 family.<sup>54</sup>

145. “One example of how Southwest demonstrates its partnership and dedication to the 737 program is through its role as the co-chair of the 737 Fleet Team Resolution Process,” said Boeing 737 Fleet Chief David Reed.<sup>55</sup>

146. In addition to participating on the Fleet Team Resolution Process, Southwest also serves as the lead airline for the Boeing 737 program. Following the Air Transport Association (“ATA”) processes to inform the fleet and solicit input surrounding potential airworthiness concerns, Southwest and the ATA collaborate with Boeing to review issues and work toward successful resolutions.<sup>56</sup>

147. Southwest continued its investment in Boeing aircraft through 2018. The airline took delivery of twenty-six new 737-800 aircraft and seven 737 MAX-8 aircraft from Boeing. As of December 31, 2018, Southwest had firm orders in place for 219 Boeing 737 MAX-8 aircraft and 30 Boeing 737 MAX-7 aircraft.<sup>57</sup>

148. Based on Boeing’s 32-year history as Southwest’s sole aircraft supplier, Boeing knows that Southwest staffs its flights with unionized flight attendants and pilots. In fact, Boeing

---

<sup>54</sup> Elizabeth Davis, *32 Years of Luv – Partnership Between Southwest and Boeing ‘Outrageously’ Successful*, Boeing Frontiers, June 2003, Volume 02, Issue 02, [https://www.boeing.com/news/frontiers/archive/2003/june/i\\_ca2.html](https://www.boeing.com/news/frontiers/archive/2003/june/i_ca2.html).

<sup>55</sup> *Id.*

<sup>56</sup> *Id.*

<sup>57</sup> Frederic Tomesco and Kevin Orland, *Boeing’s Smallest 737 MAX Faces New Doubts as a Key Buyer Wavers*, Bloomberg Business, February 6, 2019, <https://www.bloomberg.com/news/articles/2019-02-06/westjet-cools-on-smallest-boeing-737-max-as-ceo-rethinks-fleet>

invited Southwest's flight attendants and pilots to a Stakeholder meeting following the two deadly 737 MAX crashes.<sup>58</sup>

149. Boeing knows that Southwest, like all airlines, seeks to optimize its resources by maintaining a workforce that is neither too large, nor too small. Boeing also knows that Southwest flight attendants are paid per flight. Boeing further knows that Southwest's flight schedule is made far in advance and is based on the number of airworthy planes at Southwest's disposal. So, Boeing knows that its provision of, or commitment to provide, airworthy planes to Southwest directly and materially impacts the number of flight attendants Southwest employs and the flight attendants' earnings.

150. Boeing knew the impact that its conduct, including its omissions about the design of the 737 MAX, would have on Plaintiffs and all SWAFA.

**B. Unaware of Boeing's omissions, SWAFA trusted Boeing that the 737 MAX was safe.**

151. Southwest flies only Boeing 737 aircraft.<sup>59</sup>

152. As of 2011, virtually all of Southwest's fleet was 737 NGs or 737 "Classics" (the 737 generations that preceded the NG).

---

<sup>58</sup> Kris Van Cleave, *Boeing Tries to Restore Confidence in 737 MAX in Stakeholders' Presentation*, CBS News, December 8, 2019, <https://www.cbsnews.com/news/boeing-tries-to-restore-confidence-in-737-max-in-stakeholders-presentation/>

<sup>59</sup> *Id.*, and see, The Economist, *The Secrets of Southwest's Continued Success*, June 18, 2012, <https://www.economist.com/gulliver/2012/06/18/the-secrets-of-southwests-continued-success>; see also Southwest Airlines Newsroom, <https://www.swamedia.com/pages/corporate-fact-sheet#fleet>.

153. In late 2011, Boeing announced that Southwest would be a Boeing 737 MAX launch customer and had placed an order for 150 Boeing 737 MAX aircraft.<sup>60</sup>

154. Based on this public announcement, as well as various company memoranda and emails, SWAFA learned of Southwest's intent to revitalize its Boeing 737 fleet with 737 MAX aircraft.

155. From that point forward, SWAFA followed Boeing's public statements regarding the development, design and certification of the 737 MAX.

156. As described above, those statements consistently:

- a. Emphasized the 737 MAX's connection to the 737 family of aircraft;
- b. Touted its increased efficiency;
- c. Articulated only limited design changes;
- d. Made no mention of the aerodynamic changes associated with the addition of larger, more powerful engines; and
- e. Failed to disclose the existence or implementation of MCAS.

157. Boeing's public statements thus failed to disclose the aircraft's:

- a. Decrease in aircraft stability;
- b. Greater pitch-up tendency at elevated angles-of-attack;
- c. Negative change in handling characteristics;
- d. Increase in susceptibility to the risk of catastrophic stall; and
- e. Reliance on MCAS, a novel yet safety-critical flight control logic system with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

---

<sup>60</sup> The Boeing Company, *Boeing 737 MAX Logs First Firm Order from Launch Customer Southwest Airlines*, December 13, 2011, <https://boeing.mediaroom.com/2011-12-13-Boeing-737-MAX-Logs-First-Firm-Order-from-Launch-Customer-Southwest-Airlines>.

**C. SWAFA, through their union, added the 737 MAX to their collective bargaining agreement with Southwest.**

158. When Boeing announced that Southwest would be a Boeing 737 MAX launch customer and had placed an order for 150 Boeing 737 MAX aircraft in late 2011, the SWAFA were covered under a Collective Bargaining Agreement (“CBA”) that had initially become effective on June 1, 2008, and would continue in effect until May 31, 2012.<sup>61</sup> This Agreement was subsequently extended through May 31, 2013.<sup>62</sup>

159. Article 24.6 of that Agreement states as follows:

The basic Agreement shall be reopened for the purpose of negotiating rates of pay, rules and working conditions in the event that the Company places into service an aircraft other than the Boeing 737-200/300/500/600/700/800...<sup>63</sup>

160. Based on the CBA in effect at that time, SWAFA reasonably and detrimentally relied upon the omissions, public statements, and misrepresentations made by Boeing to Stakeholders and the public with regard to the development, design and certification of the 737 MAX.

161. Based upon these omissions and misrepresentations made by Boeing to Stakeholders and the public, SWAFA—through their union—entered into a subsequent CBA that became effective on June 1, 2013, and would continue in effect until October 31, 2018.<sup>64</sup>

---

<sup>61</sup> *Agreement Between Southwest Airlines Co. and The Flight Attendants in the Service of Southwest Airlines Co., as Represented by the Transportation Workers Union of America, AFL-CIO, Effective June 1, 2008 to May 31, 2012.* (Extended by agreement to May 31, 2013).

<sup>62</sup> *Id.*, Article 21 at page 211.

<sup>63</sup> *Id.*, Article 24.6 at page 211.

<sup>64</sup> *Agreement Between Southwest Airlines Co. and The Flight Attendants in the Service of Southwest Airlines Co., as Represented by the Transportation Workers Union of America, AFL-CIO, Effective June 1, 2013 to October 31, 2018.*

162. Article 24 of that Agreement, which specifically added the 737 MAX, states as follows:

The basic Agreement shall be reopened for the purpose of negotiating rates of pay, rules and working conditions in the event that the Company places into service an aircraft other than the Boeing 737-200/300/500/600/700/800/MAX-7/MAX-8 and 717...<sup>65</sup>

163. Upon information and belief, Boeing knew or should have known that SWAFA were negotiating their recent CBA based on Boeing's omissions and misrepresentations concerning the 737 MAX.

**D. Southwest hired and trained additional flight attendants in anticipation of new 737 MAX deliveries from Boeing.**

164. As of 2019, Southwest had already added 34 new Boeing 737 Max aircraft to its fleet and had over 200 more on order. In reliance on the omissions and misrepresentations made by Boeing with regard to the 737 MAX aircraft stated herein, Southwest hired and trained a significant number of new flight attendants in anticipation of the 737 MAX deliveries.

165. When the FAA grounded all 737 MAX aircraft, the loss of aircraft in combination with the additional flight attendants compounded the problem for existing SWAFA.

166. Eventually, in December 2019, the SWAFA's union sent a letter to Southwest CEO Gary Kelly and Vice President of Inflight Operations, Sonya Lacore, asking the company to stop hiring flight attendants to reduce SWAFA financial consequences from the grounding of the 737 MAX. The letter specifically stated, "The grounding of the MAX 8 has taken a significant financial toll on flight attendants," and further, "Line totals have been reduced, trips available for

---

<sup>65</sup> *Id.*, Article 24, paragraph 6 at page 24-175.

pick-up have been increasingly difficult to find, and flight attendants sitting reserve are not being utilized, causing additional financial harm.”<sup>66</sup>

### **III. THE 737 MAX’S DEFECTS CONCEALED BY BOEING LED TO TWO FATAL CRASHES, KILLING 346 PEOPLE.**

#### **A. The MCAS onboard Lion Air 610 caused the plane to crash in October 2018.**

167. After just one year of in-service history, on October 29, 2018, a 737 MAX, operated as Lion Air Flight 610, crashed into the Java Sea killing all 189 people onboard.<sup>67</sup>

168. A preliminary report issued by Indonesia’s National Transportation Safety Committee indicated that, “erroneous angle-of-attack data caused the MCAS system to repeatedly command automatic nose-down trim.”<sup>68</sup> This was the first time that Boeing disclosed the existence of MCAS to Stakeholders and the public.

169. At that time, Boeing maintained that the 737 MAX was a safe aircraft and instead focused on alleged pilot error and maintenance issues, rather than the flight safety hazard posed by the activation of MCAS at low altitude and the 737 MAX’s need for MCAS in the first place.

---

<sup>66</sup> Kyle Arnold, *Southwest Flight Attendants Ask Airline to Stop Hiring While 737 Max is Grounded*, The Dallas Morning News, December 19, 2019, <https://www.dallasnews.com/business/airlines/2019/12/19/southwest-flight-attendants-ask-airline-to-stop-hiring-while-737-max-is-grounded/>.

<sup>67</sup> Hannah Beech & Muktita Suhartono, *Confusion, Then Prayer, in Cockpit of Doomed Lion Air Jet*, The New York Times, March 20, 2019, <https://www.nytimes.com/2019/03/20/world/asia/lion-air-crash-boeing.html>; see also Ben Otto & Gaurav Raghuvanshi, *Indonesian Plane With 189 People on Board Crashes Near Jakarta*, The Wall Street Journal, October 29, 2018, <https://www.wsj.com/articles/plane-with-188-people-on-board-crashes-off-indonesia-1540784983>.

<sup>68</sup> *Preliminary Aircraft Accident Investigation Report* (2018), <https://wwwaviation24be-q41r3jh.stackpathdns.com/wp-content/uploads/2018/11/2018-035-PK-LQP-Preliminary-Report.pdf>.



170. On November 20, 2018, Boeing conducted a conference call with 737 MAX operators. During that conference call, Boeing insisted that the cause of the Lion Air crash was pilot error, and that MCAS problems already were covered and could be remedied by the ordinary runaway stabilizer correction procedure.

171. Boeing's representatives knew or should have known that, the unintended activation of MCAS by faulty data coming from a single angle-of-attack sensor was responsible for the Lion Air crash.

172. In fact, in the week after the Lion Air crash, Boeing published a flight crew operations manual update warning of a possible fault in the angle-of-attack system. Then, on November 7, 2018, the FAA issued an "Emergency Airworthiness Directive (AD) 2018-23-51," warning that an unsafe condition likely could exist or develop on 737 MAX aircraft.<sup>69</sup>

173. Relying on Boeing's description of the problem, the AD directed that in the event of un-commanded, nose-down, stabilizer trim such as what happened during the Lion Air crash, the flight crew should comply with the Runaway Stabilizer procedure in the Operating Procedures of the 737 MAX manual.

174. However, the AD did not provide a complete description of MCAS or the problem in 737 MAX aircraft that led to the Lion Air crash and would lead to another crash and the 737 MAX's grounding just months later.

175. An MCAS failure is not like a runaway stabilizer. A runaway stabilizer has continuous un-commanded movement of the tail, whereas MCAS is not continuous and pilots

---

<sup>69</sup> Federal Aviation Administration, *Emergency Airworthiness Directive 2018-53-21*, November 7, 2018, [https://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgad.nsf/0/83ec7f95f3e5bfbfd8625833e0070a070/\\$FILE/2018-23-51\\_Emergency.pdf](https://rgl.faa.gov/Regulatory_and_Guidance_Library/rgad.nsf/0/83ec7f95f3e5bfbfd8625833e0070a070/$FILE/2018-23-51_Emergency.pdf).

(theoretically) can counter the nose-down movement, after which MCAS would move the aircraft tail down again.

176. Moreover, unlike runaway stabilizer, MCAS disables the control column response that 737 pilots have grown accustomed to and relied upon in earlier generations of 737 aircraft.

177. Even after the Lion Air crash, Boeing's description of MCAS was still insufficient to correct its lack of disclosure as demonstrated by a second MCAS-caused crash.

**B. The MCAS onboard Ethiopian Airlines 302 caused the plane to crash in March 2019.**

178. On March 10, 2019, a second Boeing 737 MAX, this one operated as Ethiopian Airlines Flight 302, crashed near Addis Ababa killing all 157 people onboard.<sup>70</sup>

179. According to a preliminary report, one-minute into the flight, the pilots noticed flight-control problems. MCAS activated and pushed the nose of the aircraft down. The pilots fought to pull the nose of the plane up and were briefly able to resume climbing. Then, MCAS pushed the nose down again. The pilots then flipped two switches and temporarily disconnected MCAS, then tried to regain control. They asked to return to the airport but were continuing to struggle gaining altitude. MCAS engaged again, pushing the plane into a dive. Thirty seconds later the aircraft crashed.<sup>71</sup>

---

<sup>70</sup> Hadra Ahmed, *et al.* *Ethiopian Airlines Plane Is the 2nd Boeing Max 8 to Crash in Months*, The New York Times, March 10, 2019, <https://www.nytimes.com/2019/03/10/world/africa/ethiopian-airlines-plane-crash.html>; see also Matina Stevis-Gridneff, *Ethiopian Airlines Jet Crashes En Route to Nairobi*, The Wall Street Journal, March 11, 2019, <https://www.wsj.com/articles/ethiopian-airlines-flight-crashes-en-route-to-nairobi-11552207841?mod=hpleadpos1&mod=articleinline>.

<sup>71</sup> Aircraft Accident Investigation Bureau, <https://flightsafety.org/wp-content/uploads/2019/04/Preliminary-Report-B737-800MAX-ET-AVJ.pdf>; <https://flightsafety.org/wp-content/uploads/2019/04/Preliminary-Report-B737-800MAX-ET-AVJ.pdf> (2019).

**C. Following the crashes, global regulatory and voluntary action resulted in a worldwide grounding of the 737 MAX that remains in effect to this day.**

180. On March 11, 2019, Boeing finally acknowledged MCAS and its effects to the public in a press release stating, “A pitch augmentation control law (MCAS) was implemented on the 737 MAX to improve aircraft handling characteristics and decrease pitch-up tendency at elevated angles-of-attack.”<sup>72</sup>

181. In the days following the Ethiopian Airlines crash, aviation authorities in China, Indonesia, Australia, Hong Kong, Oman, the United Arab Emirates, Vietnam, the United Kingdom, South Korea, Singapore, Argentina, the European Union, Mexico, Brazil, Canada, India, Fiji, New Zealand, and Malaysia suspended 737 MAX operations.<sup>73</sup>

182. The FAA did so as well.<sup>74</sup>

183. Airlines operating the 737 MAX including 9 Air, Aeromexico, Air China, Cayman Airways, China Eastern Airlines, China Southern Airlines, Comair, Easter Jet, Ethiopian Airlines, Fuzhou Airlines, Garuda, GOL Airlines, Hainan Airlines, Kunming Airlines, Lucky Air, MIAT Mongolian Airlines, Okay Airways, Royal Air Maroc, Shandong Airlines, Shanghai Airlines and Xiamen Airlines also voluntarily suspended MAX operations.<sup>75</sup>

---

<sup>72</sup> The Boeing Company, *Boeing Statement on 737 MAX Software Enhancement*, March 11, 2019, <https://boeing.mediaroom.com/news-releases-statements?item=130402>.

<sup>73</sup> *Which countries have grounded the Boeing 737 MAX jets*, PBS, March 14, 2019, <https://www.pbs.org/newshour/world/which-countries-have-grounded-the-boeing-737-max-jets>; see also Nigel Chiwaya & Jiachuan Wu, *MAP: These are the countries that have grounded the Boeing 737 MAX 8*, NBC NEWS, March 13, 2019, <https://www.nbcnews.com/news/world/country-banned-boeing-737-max-airplanes-list-n982776>.

<sup>74</sup> Emergency Order of Prohibition (2019), <https://www.faa.gov/news/updates/media/EmergencyOrder.pdf>.

<sup>75</sup> Nigel Chiwaya & Jiachuan Wu, *MAP: These are the countries that have grounded the Boeing 737 MAX 8*, NBC NEWS, March 13, 2019, <https://www.nbcnews.com/news/world/country-banned-boeing-737-max-airplanes-list-n982776>.

184. As of this date, the Boeing 737 MAX fleet remains grounded worldwide and the National Transportation Safety Board (“NTSB”) has identified numerous errors that Boeing made during the design and certification process for the 737 MAX.

**IV. IN APRIL 2019, BOEING ADMITTED MCAS CAUSED THE FATAL CRASHES.**

185. On March 13, 2019, after consultation with the FAA, the NTSB, other national civil aviation authorities and customers around the world, Boeing conceded and recommended the temporary suspension of operations of the entire global fleet of 371 Boeing 737 MAX aircraft.

186. The following day, Boeing suspended all 737 MAX deliveries.<sup>76</sup>

187. Currently, there is no official word on when deliveries will resume or when the grounding will be lifted.

188. In an April 5, 2019 press release, Boeing acknowledged that MCAS caused both the Lion Air and Ethiopian Airlines crashes. Boeing stated that the “Lion Air Flight 610 and Ethiopian Airlines Flight 302 accidents were caused by a chain of events, with a common link being erroneous activation of the aircraft’s MCAS function.”<sup>77</sup>

189. The day before, Boeing CEO at the time, Dennis Muilenburg, stated that, “erroneous activation of the MCAS function can add to what is already a high workload

---

<sup>76</sup> The Boeing Company, *In Consultation with the FAA, NTSB and its Customers, Boeing Supports Action to Temporarily Ground 737 MAX Operations*, March 13, 2019, <https://boeing.mediaroom.com/news-releases-statements?item=130404>.

<sup>77</sup> The Boeing Company, *Statement from Boeing CEO Dennis Muilenburg: We Own Safety - 737 MAX Software, Production and Process Update*, April 5, 2019, <https://boeing.mediaroom.com/2019-04-05-Statement-from-Boeing-CEO-Dennis-Muilenburg-We-Own-Safety-737-MAX-Software-Production-and-Process-Update>.

environment. It's our [Boeing's] responsibility to eliminate this risk." Mr. Muilenburg further acknowledged that Boeing is working on a software fix for MCAS.<sup>78</sup>

190. Mr. Muilenburg did not explain why Boeing chose not to disclose the presence of MCAS on 737 MAX aircraft prior to or at the time Boeing launched the MAX.

191. In an April 5, 2019 press release, Boeing explained that it would temporarily move from a production rate of fifty-two (52) 737 MAX aircraft per month to forty-two (42) airplanes per month starting in mid-April 2019, so it could prioritize the focus on software fix certification and returning the MAX to flight.<sup>79</sup>

## **V. THE 737 MAX IS NOW UNDER INTENSE REGULATORY SCRUTINY.**

192. The 737 MAX is currently being scrutinized by regulators around the world.

193. In March 2019, the U.S. Department of Transportation Secretary Elaine L. Chao asked the Office of the Inspector General ("OIG") to conduct a formal audit to compile an objective and detailed factual history of the activities that resulted in the certification of the Boeing 737 MAX aircraft.<sup>80</sup> The OIG audit commenced on March 27, 2019, and is ongoing.<sup>81</sup>

---

<sup>78</sup> The Boeing Company, *Boeing CEO Dennis Muilenburg Addresses the Ethiopian Airlines Flight 302 Preliminary Report*, April 4, 2019, <https://boeing.mediaroom.com/2019-04-04-Boeing-CEO-Dennis-Muilenburg-Addresses-the-Ethiopian-Airlines-Flight-302-Preliminary-Report>; see also Robert Wall and Merrill Sherman, *The Multiple Problems, and Potential Fixes, With the Boeing 737 MAX*, *The Wall Street Journal*, August 19, 2019, <https://www.wsj.com/articles/fixing-the-problems-with-boeings-737-max-11566224866>.

<sup>79</sup> The Boeing Company, *Statement from Boeing CEO Dennis Muilenburg: We Own Safety - 737 MAX Software, Production and Process Update*, April 5, 2019, <https://boeing.mediaroom.com/2019-04-05-Statement-from-Boeing-CEO-Dennis-Muilenburg-We-Own-Safety-737-MAX-Software-Production-and-Process-Update>.

<sup>80</sup> *U.S. Secretary of Transportation Asks Inspector General to Ensure Audit of Boeing 737-MAX 8 Certification is Part of Review* (2019), <https://www.transportation.gov/briefing-room/dot1419>.

<sup>81</sup> Office of the Inspector General & Matthew E. Hampton, *Information: Audit Announcement FAA's Oversight of the Boeing 737 MAX Certification Project No. 19A3006A000* (2019),

194. On April 2, 2019, the FAA established the Joint Authorities Technical Review Team (“JATR Team”), comprised of safety experts from the FAA, NASA, and nine international aviation authorities with the purpose of conducting a comprehensive review of the certification of the 737 MAX to determine its compliance with all applicable regulations and to identify necessary future enhancements. The JATR Team held its first meeting on April 29, 2019.<sup>82</sup> Their review is ongoing.

195. The U.S. Department of Justice (“DOJ”) has also initiated a criminal investigation into Boeing’s conduct in connection with the certification of 737 MAX aircraft.<sup>83</sup> The DOJ has sought from Boeing materials relating to its marketing of the 737 MAX.<sup>84</sup> Its investigation is ongoing.

196. The U.S. House of Representatives also has initiated an investigation into Boeing.<sup>85</sup> Their investigation is ongoing.

---

<https://www.oig.dot.gov/sites/default/files/Audit%20Annoucement%20-%20FAA%27s%20Oversight%20of%20the%20Boeing%20737%20MAX%20Certification.pdf>.

<sup>82</sup> FAA Updates on Boeing 737 Max,  
<https://www.faa.gov/news/updates/?newsId=93206&xid=17259>.

<sup>83</sup> Andy Pasztor & Andrew Tangel, *Senate Committee Opens Inquiry Into FAA Safety Inspectors, Training Requirements for Boeing 737 MAX*, The Wall Street Journal, April 2, 2019, <https://www.wsj.com/articles/senate-committee-opens-inquiry-into-faa-safety-inspectors-training-requirements-for-boeing-737-max-11554241623>.

<sup>84</sup> Evan Perez & Shimon Prokupecz, *Justice Department issues subpoenas in criminal investigation of Boeing*, CNN, March 21, 2019, <https://www.cnn.com/2019/03/20/business/boeing-justice-department-subpoenas/index.html>.

<sup>85</sup> Andy Pasztor & Andrew Tangel, *Senate Committee Opens Inquiry Into FAA Safety Inspectors, Training Requirements for Boeing 737 MAX*, The Wall Street Journal, April 2, 2019, <https://www.wsj.com/articles/senate-committee-opens-inquiry-into-faa-safety-inspectors-training-requirements-for-boeing-737-max-11554241623>.

197. The U.S. Securities and Exchange Commission (“SEC”) is also investigating Boeing’s disclosures to shareholders. The SEC inquiry also focuses on whether Boeing adequately disclosed dangers associated with MCAS.<sup>86</sup> The investigation is ongoing.

198. Regulators have since discovered additional, previously undisclosed problems with the 737 MAX that must be fixed before the MAX can again be certified for flight. For example, in June 2019, the FAA discovered an additional safety issue relating to the 737 MAX’s flight control system that requires fixing.<sup>87</sup>

199. Around that same time, the FAA also noticed problems associated with the 737 MAX’s emergency procedures, requiring an additional delay in recertification.<sup>88</sup> Although there has been no public disclosure of the emergency procedure problems being examined, reports indicate that such problems relate to measures that pilots can take to counteract MCAS in the event of a malfunction.<sup>89</sup>

200. On July 5, 2019, it was reported that the European Union Aviation Safety Agency (“EASA”) outlined five (5) issues that Boeing must address before it would approve the 737 MAX

---

<sup>86</sup> Samantha Masunaga, *Boeing reportedly facing SEC probe over investor disclosures related to 737 Max*, The Los Angeles Times, May 24, 2019, <https://www.latimes.com/business/la-fi-boeing-737-max-sec-20190524-story.html>.

<sup>87</sup> BBC, *Boeing 737 Max: New issue could delay aircraft’s return*, June 27, 2019, <https://www.bbc.com/news/business-48752932>; see also Anurag Kotoky & Kyunghee Park, *Boeing’s Grounded 737 MAX – The Story So Far*, The Washington Post, July 9, 2019, [https://www.washingtonpost.com/business/boeings-grounded-737-max-the-story-so-far/2019/07/08/5eb2e4be-a1e6-11e9-a767-d7ab84aef3e9\\_story.html?utm\\_term=.7909863e133b](https://www.washingtonpost.com/business/boeings-grounded-737-max-the-story-so-far/2019/07/08/5eb2e4be-a1e6-11e9-a767-d7ab84aef3e9_story.html?utm_term=.7909863e133b).

<sup>88</sup> David Gelles, *Boeing Pledges \$100 Million to Those Affected by 737 MAX Crashes*, The New York Times, July 3, 2019, <https://www.nytimes.com/2019/07/03/business/boeing-737-max-crash-compensation.html>.

<sup>89</sup> Andrew Tangel & Andy Pasztor, *FAA Finds New Software Problem in Boeing’s 737 MAX*, The Wall Street Journal, June 26, 2019, <https://www.wsj.com/articles/faa-finds-new-software-problem-in-boeings-737-max-11561596917>.

for return to service, including problems associated with the 737 MAX's angle-of-attack sensors, inadequate training measures, potential difficulty that pilots could have in turning the manual trim wheel, and problems associated with the MAX's autopilot function.<sup>90</sup>

201. EASA also appears focused on a pilot's potential inability to counteract MCAS in the event of malfunction.<sup>91</sup>

202. EASA will conduct its own separate test flight of the MAX before it is allowed to return to service in Europe and is specifically considering whether it will require the MAX to have a third angle-of-attack sensor to be considered airworthy.<sup>92</sup>

203. On September 26, 2019, the NTSB issued a Safety Recommendation Report to address Boeing's erroneous "assumptions about pilot recognition and response to failure conditions used during the design and certification process" of the 737 MAX.<sup>93</sup>

204. The NTSB found that, neither Boeing's System Safety Assessment ("SSA") nor its simulator tests satisfied the requirements of 14 C.F.R. 25.1309 and it directed the FAA to, "require that Boeing (1) ensure that System Safety Assessments for the 737 MAX in which it assumed immediate and appropriate pilot corrective actions in response to un-commanded flight control inputs, from systems such as [MCAS], consider the effect of all possible flight deck alerts and

---

<sup>90</sup> Benjamin D. Katz & Alan Levin, *Boeing 737 MAX has Autopilots, European Regulators Find*, Bloomberg, July 5, 2019, <https://www.bloomberg.com/news/articles/2019-07-05/europe-sets-out-demands-for-boeing-before-max-can-fly-again>.

<sup>91</sup> *Id.*

<sup>92</sup> Alan Levin & Richard Weiss, *Boeing 737 MAX jet to face separate flight test by EU regulators*, The Seattle Times, September 10, 2019, <https://www.seattletimes.com/business/boeing-aerospace/boeing-737-max-jet-to-face-separate-flight-test-by-eu-regulators/>.

<sup>93</sup> NTSB, Safety Recommendation Report: Assumptions Used in Safety Assessment Process and the Effects of Multiple Alerts and Indications on Pilot Performance, September 19, 2019, available at: <https://www.nts.gov/investigations/AccidentReports/Reports/ASR1901.pdf>.



indications on pilot recognition and response; and (2) incorporate design enhancements (including flight deck alerts and indications), pilot procedures, and/or training requirements, where needed, to minimize the potential for and safety impact of pilot actions that are inconsistent with manufacturer assumptions.”<sup>94</sup>

205. The full scope of previously undetected problems, that may affect the 737 MAX’s safety and need remediation, are currently unknown.

## **VI. SOUTHWEST’S 737 MAX FLEET REMAINS GROUNDED.**

206. Southwest took delivery of its first 737 MAX on August 29, 2017 and put it into revenue service on October 1, 2017.

207. By February 2019, Southwest had 34 Boeing 737 MAX aircraft in its fleet, with another 36 due to be delivered before the end of the year, and more than 200 additional 737 MAX aircraft on order.

208. Accordingly, had the 737 MAX required new pilot training, Boeing would have owed Southwest at least \$70 million by the end of 2019.<sup>95</sup>

209. Southwest’s 737 MAX fleet remains grounded with the rest of the world’s 737 MAX fleet.<sup>96</sup>

---

<sup>94</sup> *Id.*

<sup>95</sup> Maureen Tkacik, *Crash Course: How Boeing’s Managerial Revolution Created the 737 MAX Disaster*, The New Republic, September 18, 2019, <https://newrepublic.com/article/154944/boeing-737-max-investigation-indonesia-lion-air-ethiopian-airlines-managerial-revolution>.

<sup>96</sup> Hannah Sampson, *Everything Travelers Need to Know About Boeing 737 Max Developments*, The Washington Post, September 1, 2019, <https://www.washingtonpost.com/travel/2019/08/14/everything-travelers-need-know-about-boeing-max-developments/>.

210. All of Southwest's 737 MAX aircraft were removed completely from Southwest's flight schedule through January 5, 2020.<sup>97</sup>

**VII. BOEING KNEW IT WAS PUTTING CUSTOMERS, THEIR EMPLOYEES, AND THE PUBLIC IN HARM'S WAY.**

211. Boeing knew or should have known that the 737 MAX was unsafe, un-airworthy, and placed SWAFA, pilots, the passengers in their care, and others, in danger.

212. First, that Boeing knew or should have known that the 737 MAX was unsafe and un-airworthy is demonstrated by its false SSA for MCAS that Boeing filed with the FAA and that the NTSB subsequently found to be non-compliant with 14 C.F.R. 25.1309.

213. The SSA:

- a. Understated MCAS's authority to command the number and length of trim movements by the horizontal stabilizer;
- b. Understated the degree to which MCAS could move the horizontal stabilizer;
- c. Failed to account for the fact that MCAS was designed to reset and repeat its commands even after the pilot countermanded MCAS's automatic nose-down trim;
- d. Failed to disclose that MCAS relied on a single angle-of-attack sensor and thus was a single point failure; and
- e. Classified MCAS incorrectly as "hazardous."

214. Because MCAS's SSA was incorrect, Boeing knew or should have known that MCAS was being misrepresented when discussed with others.

---

<sup>97</sup> Leslie Josephs, *Southwest Won't Fly Boeing 737 Max Until 2020 and Will End Newark Flights*, CNBC, July 25, 2019, <https://www.cnbc.com/2019/07/25/southwest-air-to-pull-out-of-newark-after-taking-a-growth-hit-from-the-boeing-737-max-grounding.html>.

215. Boeing nonetheless implemented MCAS in order to make the 737 MAX “feel” like prior generations of 737 aircraft, furthering its misinformation campaign upon which SWAFA relied.

216. Boeing did so without acknowledging actual differences between the 737 MAX and prior generations of 737 aircraft.

217. Boeing thus failed to mitigate the actual risk of catastrophic stall on the 737 MAX.

218. Boeing also failed to inform and warn Stakeholders (including SWAFA) and the public of the risk of catastrophic stall on the 737 MAX.

219. Boeing therefore also failed to ensure adequate pilot training on how to avoid the increased risk of catastrophic stall on the 737 MAX aircraft as compared to prior generations of 737s.

220. Boeing did so for the purpose of selling 737 MAX aircraft to Southwest (and other air carriers), without the need to alter its rushed development time frame.

221. In doing so, Boeing also violated FAA’s Airworthiness Standards for Commercial Aircraft, 14 C.F.R. § 25.203(a) – Stall Characteristics, which states in part “[n]o abnormal nose-up pitching may occur... In addition, it must be possible to promptly prevent stalling and to recover from a stall by normal use of the controls.”

222. By virtue of selling an aircraft it knew violated federal aviation regulations, it was reasonably foreseeable that such aircraft likely would be grounded in the future once its defect was discovered and until such defect could be remedied.

223. As a result of Boeing’s intentional, reckless, and negligent conduct, SWAFA were placed in harm’s way, and SWAFA incurred damages and other losses described below.

# **VIII. PLAINTIFFS HAVE BEEN HARMED SUBSTANTIALLY BY BOEING'S CONDUCT.**

224. As a result of the FAA grounding of the Boeing 737 Max aircraft, Southwest recently announced that it will cancel approximately 330 flights per day through June 6, 2020 (8.25% of the 4,000 daily flights it had scheduled)<sup>98</sup>. Southwest is now without 10% of its aircraft fleet.

225. Even if Boeing is able to get the 737 MAX re-certified, and Southwest is able to get the 737 MAX operating in commercial passenger service by the end of 2020, SWAFA will still have collectively lost significant income and other compensation.

226. These losses will continue until such time as Southwest is able to re-integrate the 737 MAX into its flight schedules.

## **CLASS ACTION ALLEGATIONS**

227. Plaintiffs incorporate by reference all preceding paragraphs of this Complaint, with the same force and effect as if set forth herein.

228. The claims asserted herein all derive directly from a course of conduct by Defendant Boeing. Defendant has engaged in uniform and standardized conduct toward the class. Defendant has not differentiated, in degree of care or candor, in its actions or inactions, or in the content of its statements, representations, or omissions, among individual class members. The objective facts on these subjects are all the same for all class members. Within each Claim for Relief asserted by the class, the same legal standards govern. Additionally, many states, and for

---

<sup>98</sup> Kyle Arnold, *Pain from 737 MAX Saga Spreads as Southwest Cancels Flights into June*, The Dallas Morning News, January 16, 2020, <https://www.dallasnews.com/business/airlines/2020/01/16/southwest-airlines-also-pulls-737-max-from-schedules-until-june/>.

some claims all states, share the same legal standards and elements of proof, facilitating the certification of multistate or nationwide class or classes for some or all claims.

**The Nationwide Southwest Airlines Flight Attendant Class**

229. Plaintiffs, SWAFA, bring this action and seek to certify and maintain it as a class action pursuant to Fed. R. Civ. P. 23(b)(3) on behalf of themselves and a Nationwide Southwest Airline Flight Attendant Class defined as follows:

All persons in the United States who were employed by Southwest Airlines Co. as a Flight Attendant on or after March 13, 2019 – the date that the FAA grounded the Boeing 737 MAX fleet of aircraft. The Class Period shall include the time from March 13, 2019 until such time as the 737 MAX is returned to service and the number of flights for members of the Class is restored to pre-March 13, 2019 levels.

230. This action satisfies the numerosity, commonality, predominance typicality, adequacy, and superiority requirements of those provisions of Rule 23 of the Federal Rules of Civil Procedure.

231. Excluded from the Nationwide Southwest Airline Flight Attendant Class are Defendants, any entity in which Defendant has a controlling interest, and Defendant's officers, directors, legal representatives, successors, subsidiaries, and assigns. Also excluded from the Class is any judge, justice, magistrate, or judicial officer presiding over this matter and the members of their immediate families and judicial staff.

**Statewide Classes**

232. Alternatively, pursuant to Fed. R. Civ. P. 23 (b)(3), Plaintiffs assert common law claims for Fraudulent Misrepresentation (Count I), Negligent Misrepresentation (Count II), Tortious Interference with Contractual Rights and Relationship (Count III), Tortious Interference with an existing Business Relationship (Count IV), Negligence (Count V), and Fraud by Non-

disclosure (Count VI), on behalf of separate statewide classes for each state in which Defendant has done business in which Plaintiffs and/or members of the Class reside, defined as follows:

All persons in each state who were employed by Southwest Airlines Co. as a Flight Attendant on or after March 13, 2019 – the date that the FAA grounded the Boeing 737 MAX fleet of aircraft. The Class Period shall include the time from March 13, 2019 until such time as the 737 MAX is returned to service and the number of flights for members of the Class is restored to pre-March 13, 2019 levels.

233. Excluded from each Statewide Class are Defendants, any entity in which Defendant has a controlling interest, and Defendant's officers, directors, legal representatives, successors, subsidiaries, and assigns. Also excluded from the Class is any judge, justice, magistrate, or judicial officer presiding over this matter and the members of their immediate families and judicial staff.

#### **Class Certification is Appropriate**

234. The proposed Nationwide Class, or alternatively, the separate Statewide Classes (collectively, the "Class" as used in this sub-section) meet the requirements of Fed. R. Civ. P. 23(b)(3).

#### **Numerosity**

235. This action satisfies the requirements of Fed. R. Civ. P. 23(a)(1). There are approximately 17,000 Southwest Airlines Flight Attendants nationwide, and from hundreds to thousands of Southwest Airlines Flight Attendants in each of the States. As such, individual joinder of all Class members is impracticable.

#### **Commonality and Predominance**

236. This action satisfies the requirements of Fed. R. Civ. P. 23(a)(2) and 23(b)(3) because there are many questions of law or fact common to the claims of the Plaintiffs and other members of the Class (SWAFA), and those questions predominate over questions that may affect individual Class members. These common questions include, without limitation, the following:

- a. Whether Boeing concealed the truth about the 737 MAX's safety, design defects, and airworthiness from the public, Southwest, and SWAFA.
- b. Whether Boeing's omissions and misrepresentations concerning the 737 MAX were false in that Boeing did not disclose that, as compared to the 737 NG;
- c. Whether Boeing concealed all or parts of the truth when it had a legal duty to speak, and to inform Stakeholders (including SWAFA) and the public concerning the differences between the 737 NG and 737 MAX;
- d. Whether Boeing made these omissions and misrepresentations knowing that Stakeholders (including SWAFA) and the public were relying on their truthfulness;
- e. Whether Boeing knew that the foregoing misrepresentations were false, or recklessly disregarded their truthfulness in making such representations.
- f. Whether Boeing's omissions and misrepresentations related to objectively material facts concerning the 737 MAX;
- g. Whether Boeing had a legal duty to correct these omissions and misrepresentations once made but failed to do so until it was too late;
- h. Whether Boeing made the foregoing omissions and misrepresentations for its economic advantage;
- i. Whether Boeing made the foregoing omissions and misrepresentations with the intent to induce its customers (including Southwest), their employees (including SWAFA), and the public to rely on the representations;
- j. Whether Boeing's omissions and misrepresentations were the direct and proximate cause of SWAFA's damages as stated herein, which continue to accrue; and
- k. Whether SWAFA are entitled to damages for their losses and the extent of such damages.

### **Typicality**

237. This action satisfies the requirements of Fed. R. Civ. P. 23(a)(3) because Plaintiffs' claims are typical of the claims of other Class members and arise from the same course of conduct by Defendant. The relief Plaintiffs seek is also typical of the relief sought for the absent Class members.

### **Adequacy**

238. Plaintiffs will fairly and adequately represent and protect the interests of the Class. Plaintiffs have retained counsel competent and experienced in complex litigation and class actions. Plaintiffs have no interests that are antagonistic to those of the Class, and there are no defenses unique to Plaintiffs.

239. Plaintiffs and their counsel are committed to vigorously prosecuting this action on behalf of the Class and have the financial resources to do so. Neither Plaintiffs nor their counsel have any interests adverse to those of the Plaintiffs or the Class.

### **Superiority**

240. This action satisfies the requirements of Fed. R. Civ. P. 23(b)(2) because Defendant has committed acts and omissions generally applicable to the entire Class as a whole.

241. This action further satisfies the requirements of Fed. R. Civ. P. 23(b)(3) because a class action is superior to other available methods for the fair and efficient adjudication of this controversy. The common questions of law or fact regarding Defendant's conduct and responsibility predominate over any question affecting only individual Class members.

242. Because the damages suffered by each individual Class member may be relatively small, the expense and burden of individual litigation would make it very difficult or impossible for individual Class members to redress the wrongs done to each of them individually, such that most or all Class members would have no rational economic interest in individually controlling the prosecution of specific actions, and the burden imposed on the judicial system by individual litigation by even a small fraction of the Class would be enormous, making class adjudication the superior alternative under Fed. R. Civ. P. 23(b)(3)(A).



243. The conduct of this action as a class action presents far fewer management difficulties, far better conserves judicial resources and the parties' resources, and far more effectively protects the rights of each Class member than would piecemeal litigation. Compared to the expense, burdens, inconsistencies, economic infeasibility, and inefficiencies of individualized litigation, the challenges of managing this action as a class action are substantially outweighed by the benefits to the legitimate interests of the parties, the court, and the public of class treatment in this Court, making class adjudication superior to other alternatives, under Fed. R. Civ. P. 23(b)(3)(D).

244. Plaintiffs are not aware of any obstacles likely to be encountered in the management of this action that would preclude its maintenance as a class action. Fed. R. Civ. P. 23 provides the Court with authority and flexibility to maximize the efficiencies and benefits of the class mechanism and reduce management challenges. The Court may, on motion of Plaintiffs or on its own determination, certify nationwide, statewide, and/or multistate classes for claims sharing common legal questions; utilize the provisions of Fed. R. Civ. P. 23(c)(4) to certify any particular claims, issues, or common questions of fact or law for class-wide adjudication; certify and adjudicate bellwether class claims; and utilize Fed. R. Civ. P. 23(c)(5) to divide any class into subclasses.

245. The Classes expressly disclaim any recovery in this action for physical injury resulting from the MCAS defects without waiving or dismissing such claims. Plaintiffs are informed and believe that injuries suffered in crashes of Lion Air Flight 610 and Ethiopian Airlines Flight 302, as a result of the MCAS defects, implicate Defendant's aircraft and constitute evidence supporting Plaintiffs' various claims. The increased risk of injury from the MCAS defect serves as an independent justification for the relief sought by Plaintiffs and the Class.

## **CLAIMS FOR RELIEF**

### **COUNT I** **(Fraud by Non-disclosure)**

246. Plaintiffs incorporate by reference all preceding paragraphs of this Complaint, with the same force and effect as if set forth herein.

247. Boeing marketed the 737 MAX as a variant of the safe, reliable and time-tested 737 family of aircraft, with new fuel-efficient engines and “very deliberate” design enhancements that posed “minimal risk.”

248. Boeing made the foregoing misrepresentations on its website and in press releases, including, but not limited to, its statements claiming that Boeing would minimize changes from the 737 NG to the 737 MAX, and that Boeing had only made changes after being assured of their safety.

249. Boeing’s representations concerning the 737 MAX were false, in that Boeing did not disclose that, as compared to the 737 NG, Boeing’s use of the LEAP-1B® engines on the 737 MAX, among other things:

- a. Changed the aircraft’s aerodynamic center of gravity;
- b. Decreased the aircraft’s stability;
- c. Created greater pitch-up tendency at elevated angles-of-attack;
- d. Negatively changed the aircraft’s handling characteristics;
- e. Increased the aircraft’s susceptibility to the risk of catastrophic stall; and
- f. Reliance on MCAS, a novel yet safety-critical flight control logic system with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

250. These omissions were of material facts.

251. Boeing omitted these material facts knowing that Stakeholders and the public were relying on Boeing's complete candor regarding the safety of its aircraft.

252. Boeing intended to deceive Stakeholders by these omissions.

253. Boeing omitted these facts intentionally.

254. Boeing knew or should have known that Stakeholders would likely rely upon Boeing's omissions and misrepresentations in making decisions regarding, for example, CBAs and employment with airlines, such as Southwest, Boeing's largest customer for the 737 MAX.

255. Boeing had a legal duty to speak, and to inform Stakeholders and the public concerning the differences between the 737 NG and 737 MAX.

256. Boeing had a legal duty to correct these omissions once made but failed to do so until it was too late.

257. Boeing omitted the foregoing material facts for its economic advantage.

258. Unaware of Boeing's omissions, SWAFA relied on Boeing's misrepresentations as true and complete because of Boeing's superior knowledge concerning the 737 MAX, and SWAFA's inability to acquire its own knowledge concerning Boeing's representations.

259. SWAFA's reliance on Boeing's misrepresentations as true and complete was justifiable as SWAFA did not have any reason to doubt the truthfulness and completeness of Boeing's representations and disclosures.

260. Unaware of Boeing's omissions, SWAFA were entitled to rely on Boeing's misrepresentations as true and complete.

261. SWAFA acted in reliance on Boeing's representations including the 737 MAX in its 2013 CBA, which SWAFA would not have done had they known the truth about Boeing's

misrepresentations or that Boeing was concealing objectively material information relating to the 737 MAX.

262. Boeing knew its omissions and actions—misrepresenting the safety of the 737 MAX—were substantially certain to interfere with SWAFA’s CBA and business relationship with Southwest.

263. Boeing’s omissions and misrepresentations thus interfered with SWAFA’s expected benefits from its CBA and their business relationship with Southwest.

264. Boeing’s non-disclosures, therefore, were the proximate cause and cause in fact of SWAFA’ damages and losses.

265. Such damages can be determined based on Southwest’s published flight schedules that incorporate the 737 MAX versus Southwest’s actual flight schedule subsequent to the grounding.

266. SWAFA are entitled to damages for their losses in amounts to be determined at trial.

**COUNT II**  
**(Negligence)**

267. Plaintiffs incorporate by reference all preceding paragraphs of this Complaint, with the same force and effect as if set forth herein.

268. Boeing knew or should have known that the 737 MAX was unsafe, unairworthy, and placed pilots, flight attendants, passengers in their care, and others in danger.

269. Boeing had a duty as an aircraft manufacturer to manufacture safe and airworthy aircraft.

270. Boeing knew or should have known that the 737 MAX was unsafe and unairworthy because it filed a false System Safety Assessment (“SSA”) with the FAA for MCAS that the NTSB found to be non-compliant with 14 C.F.R. § 25.1309.

271. The Joint Authorities Technical Review Team identified specific areas related to the evolution of the design of the MCAS, where the certification deliverables were not updated during the certification program to reflect the changes to this function within the flight control system. In addition, the design assumptions were not adequately reviewed, updated or validated, possible flight deck effects were not evaluated, the SSA and Functional Hazard Assessment (“FHA”) were not consistently updated, and potential crew workload effects resulting from MCAS design changes were not identified.

272. In addition, the SSA filed by Boeing for the MCAS:

- a. Understated MCAS’s authority to command the number and length of trim movements by the horizontal stabilizer;
- b. Understated the degree to which MCAS could move the horizontal stabilizer;
- c. Failed to account for the fact that MCAS was designed to reset and repeat its commands, even after the pilot countermanded MCAS’s automatic nose-down trim;
- d. Failed to disclose that MCAS relied on a single angle-of-attack sensor and thus was a single point failure; and
- e. Classified MCAS incorrectly as “hazardous.”

273. Boeing nonetheless implemented MCAS in order to make the 737 MAX “feel” like prior generations of 737 aircraft.

274. Boeing did so without acknowledging the actual differences between the 737 MAX and prior generations of 737 aircraft.

275. Boeing thus failed to mitigate the actual risk of catastrophic stall on the 737 MAX.

276. Boeing also failed to inform and warn its customers, pilots, flight attendants, passengers in their care, and others, of the risk of catastrophic stall on the 737 MAX, despite its duty to do so.

277. Boeing also failed to adequately train its customers and pilots on how to avoid the increased risk of catastrophic stall on the 737 MAX aircraft, as compared to prior generations of 737s, despite its duty to do so.

278. Boeing did so for the purpose of selling 737 MAX aircraft to its customers (including Southwest), without the need to alter its rushed development time frame, and without the need for those carriers to incur additional cost.

279. Boeing violated the FAA's Airworthiness Standards for Commercial Aircraft, 14 C.F.R. § 25.203(a) – Stall Characteristics, which states in part “[n]o abnormal nose-up pitching may occur... In addition, it must be possible to promptly prevent stalling and to recover from a stall by normal use of the controls.”

280. By virtue of selling an aircraft it knew violated Federal Aviation Regulations, it was reasonably foreseeable that such aircraft likely would be grounded in the future once its defect was discovered and until such defect could be remedied.

281. As a result of Boeing's conduct, SWAFA have incurred damages including lost income and other compensation.

282. SWAFA would also not have agreed to include the 737 MAX as a term of their 2013 CBA, had they known of the truth about Boeing's misrepresentations or that Boeing was concealing objectively material information relating to the 737 MAX.

283. Boeing breached its duties to manufacture safe aircraft, and to warn and adequately train its customers and pilots. These breaches were the proximate cause and cause in fact of SWAFA's damages.

284. Such damages can be determined based on Southwest's published flight schedules that incorporate the 737 MAX versus Southwest's actual flight schedule subsequent to the grounding.

285. SWAFA are entitled to damages for their losses in amounts to be determined at trial.

**COUNT III**  
**(Tortious Interference with Contractual Rights and Relationship)**

286. Plaintiffs incorporate by reference all preceding paragraphs of this Complaint, with the same force and effect as if set forth herein.

287. In 2012/2013, SWAFA were negotiating a new CBA with Southwest.

288. Boeing was aware of these facts through its relationship and close business connections with Southwest.

289. Boeing concealed material information from Stakeholders and misrepresented that the 737 MAX was the same in all material respects to its predecessors that already were covered by the SWAFA/Southwest CBA, including the 737 NG.

290. Boeing marketed the 737 MAX as a variant of the safe, reliable, and time-tested 737 family of aircraft, with new fuel-efficient engines and "very deliberate" design enhancements that posed "minimal risk."

291. Boeing made the foregoing omissions and misrepresentations on its website and in press releases, including, but not limited to its statements claiming that Boeing would minimize

changes from the 737 NG to the 737 MAX, and that Boeing had only made changes after being assured of their safety.

292. Boeing's omissions and misrepresentations concerning the 737 MAX were false, in that Boeing did not disclose that, as compared to the 737 NG, Boeing's use of the LEAP-1B® engines on the 737 MAX, among other things:

- a. Changed the aircraft's aerodynamic center of gravity;
- b. Decreased the aircraft's stability;
- c. Created greater pitch-up tendency at elevated angles-of-attack;
- d. Negatively changed the aircraft's handling characteristics;
- e. Increased the aircraft's susceptibility to the risk of catastrophic stall; and
- f. Reliance on MCAS, a novel yet safety-critical flight control logic system with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

293. These omissions and misrepresentations were intentional and improper—that is, unjustifiable.

294. Boeing made these omissions and misrepresentations knowing that Stakeholders and the public were relying on their truth.

295. Boeing knew that the foregoing omissions and misrepresentations were misleading, or recklessly disregarded their truthfulness in making such omissions and misrepresentations.

296. SWAFA could not have discovered the truth of the matter on their own.

297. Boeing's omissions and misrepresentations related to objectively material facts concerning the 737 MAX.

298. Boeing knew or should have known that it made representations and omissions to Stakeholders and that SWAFA would likely rely upon those omissions and misrepresentations in



making decisions regarding their CBA and employment with Southwest, Boeing's largest customer for the 737 MAX.

299. Boeing had a financial incentive to make the foregoing omissions and misrepresentations, namely that including the 737 MAX in the SWAFA/Southwest CBA was critical to the domestic launch of the 737 MAX aircraft and would cause Southwest to purchase more 737 MAX aircraft and contribute generally to the acceptance of the 737 MAX into the commercial aircraft market.

300. Boeing made the foregoing omissions and misrepresentations for its economic advantage.

301. There is no social interest in protecting Boeing's conduct, which caused foreseeable and direct economic harm to SWAFA.

302. Boeing knew or should have known that the foregoing omissions and misrepresentations would induce its customers' (including Southwest) and their employees' (including SWAFA) reliance.

303. Unaware of Boeing's omissions, SWAFA relied on Boeing's misrepresentations as true because of Boeing's superior knowledge concerning the 737 MAX, and SWAFA's inability to acquire its own knowledge concerning Boeing's representations.

304. SWAFA's reliance on Boeing's misrepresentations, omissions, and non-disclosures was justifiable as SWAFA did not have any reason to doubt the truthfulness and completeness of Boeing's representations and disclosures.

305. SWAFA was entitled to rely on Boeing's representations.

306. Unaware of Boeing's omissions, SWAFA acted in reliance on Boeing's misrepresentations including the 737 MAX in its 2013 CBA, which SWAFA would not have done

had they known the truth about Boeing's misrepresentations or that Boeing was concealing objectively material information relating to the 737 MAX.

307. Boeing knew its omissions and actions—misrepresenting the safety of the 737 MAX—were substantially certain to interfere with SWAFA's CBA and business relationship with Southwest.

308. Boeing's omissions and misrepresentations thus interfered with SWAFA's expected benefits from their CBA and their business relationship with Southwest.

309. Boeing's actions were willful and intentional.

310. Boeing's misrepresentations were the direct and proximate cause of SWAFA's damages as stated herein, which continue to accrue.

311. Such damages can be determined based on Southwest's published flight schedules that incorporate the 737 MAX versus Southwest's actual flight schedule subsequent to the grounding.

312. SWAFA are entitled to damages for their losses in amounts to be determined at trial.

**COUNT IV**  
**(Tortious Interference with an Existing Business Relationship)**

313. Plaintiffs hereby incorporate by reference all preceding paragraphs of this Complaint, with the same force and effect as if set forth herein.

314. In 2012/2013, SWAFA were negotiating a new CBA with Southwest.

315. SWAFA had an existing business relationship with Southwest.

316. Boeing was aware of these facts through its relationship and close business connections with Southwest.

317. Boeing concealed material information from Stakeholders and misrepresented that the 737 MAX was the same in all material respects to its predecessors that already were covered by the SWAFA/Southwest CBA, including the 737 NG.

318. Boeing marketed the 737 MAX as a variant of the safe, reliable, and time-tested 737 family of aircraft, with new fuel-efficient engines and “very deliberate” design enhancements that posed “minimal risk.”

319. Boeing made the foregoing omissions and misrepresentations on its website and in press releases, including, but not limited to its statements claiming that Boeing would minimize changes from the 737 NG to the 737 MAX, and that Boeing had only made changes after being assured of their safety.

320. Boeing’s omissions and misrepresentations concerning the 737 MAX were false, in that Boeing did not disclose that, as compared to the 737 NG, Boeing’s use of the LEAP-1B® engines on the 737 MAX, among other things:

- a. Changed the aircraft’s aerodynamic center of gravity;
- b. Decreased the aircraft’s stability;
- c. Created greater pitch-up tendency at elevated angles-of-attack;
- d. Negatively changed the aircraft’s handling characteristics;
- e. Increased the aircraft’s susceptibility to the risk of catastrophic stall; and
- f. Reliance on MCAS, a novel yet safety-critical flight control logic system with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

321. These representations and omissions were false.

322. Boeing made these omissions and misrepresentations knowing that Stakeholders and the public were relying on their truth.

323. Boeing knew that the foregoing omissions and misrepresentations were misleading, or recklessly disregarded their truthfulness in making such omissions and misrepresentations.

324. SWAFA could not have discovered the truth of the matter on their own.

325. Boeing's omissions and misrepresentations related to objectively material facts concerning the 737 MAX.

326. Boeing knew or should have known that it made representations and omissions to Stakeholders and that SWAFA would likely rely upon those omissions and misrepresentations in making decisions regarding their CBA and employment with Southwest, Boeing's largest customer for the 737 MAX.

327. Boeing had a financial incentive to make the foregoing omissions and misrepresentations, namely that including the 737 MAX in the SWAFA/Southwest CBA was critical to the domestic launch of the 737 MAX aircraft and would cause Southwest to purchase more 737 MAX aircraft and contribute generally to the acceptance of the 737 MAX into the commercial aircraft market.

328. Boeing made the foregoing omissions and misrepresentations for its economic advantage.

329. There is no social interest in protecting Boeing's conduct, which caused foreseeable and direct economic harm to SWAFA.

330. Boeing knew or should have known that the foregoing omissions and misrepresentations would induce its customers' (including Southwest) and their employees' (including SWAFA) reliance.

331. Unaware of Boeing's omissions, SWAFA relied on Boeing's misrepresentations as true because of Boeing's superior knowledge concerning the 737 MAX, and SWAFA's inability to acquire its own knowledge concerning Boeing's representations.

332. SWAFA's reliance on Boeing's misrepresentations, omissions, and non-disclosures was justifiable as SWAFA did not have any reason to doubt the truthfulness and completeness of Boeing's representations and disclosures.

333. SWAFA was entitled to rely on Boeing's representations.

334. Unaware of Boeing's omissions, SWAFA acted in reliance on Boeing's misrepresentations including the 737 MAX in its 2013 CBA, which SWAFA would not have done had they known the truth about Boeing's misrepresentations or that Boeing was concealing objectively material information relating to the 737 MAX.

335. Boeing knew its omissions and actions—misrepresenting the safety of the 737 MAX—were substantially certain to interfere with SWAFA's CBA and business relationship with Southwest.

336. Boeing's omissions and misrepresentations thus interfered with SWAFA's expected benefits from their CBA and their business relationship with Southwest.

337. Boeing's actions were willful and intentional.

338. Boeing's misrepresentations were the direct and proximate cause of SWAFA's damages as stated herein, which continue to accrue.

339. Such damages can be determined based on Southwest's published flight schedules that incorporate the 737 MAX versus Southwest's actual flight schedule subsequent to the grounding.

340. SWAFA are entitled to damages for their losses in amounts to be determined at trial.

**COUNT V**  
**(Fraudulent Misrepresentation)**

341. Plaintiffs incorporate by reference all preceding paragraphs of this Complaint, with the same force and effect as if set forth herein.

342. Boeing marketed the 737 MAX as a variant of the safe, reliable and time-tested 737 family of aircraft, with new fuel-efficient engines and “very deliberate” design enhancements that posed “minimal risk.”

343. Boeing made the foregoing omissions and misrepresentations on its website and in press releases, including, but not limited to its statements claiming that Boeing would minimize changes from the 737 NG to the 737 MAX, and that Boeing had only made changes after being assured of their safety.

344. Boeing’s omissions and misrepresentations concerning the 737 MAX were misleading in that Boeing did not disclose that, as compared to the 737 NG, Boeing’s use of the LEAP-1B® engines on the 737 MAX, among other things:

- a. Changed the aircraft’s aerodynamic center of gravity;
- b. Decreased the aircraft’s stability;
- c. Created greater pitch-up tendency at elevated angles-of-attack;
- d. Negatively changed the aircraft’s handling characteristics;
- e. Increased the aircraft’s susceptibility to the risk of catastrophic stall; and
- f. Reliance on MCAS, a novel yet safety-critical flight control logic system with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

345. These representations were false.

346. Boeing made these omissions and misrepresentations knowing that Stakeholders (including SWAFA) and the public were relying on their truth.

347. Boeing knew that the foregoing omissions and misrepresentations were misleading, or recklessly disregarded their truthfulness.

348. Boeing's omissions and misrepresentations related to objectively material facts concerning the 737 MAX.

349. Boeing concealed all or parts of the truth when it had a legal duty to speak, and to inform Stakeholders and the public concerning the differences between the 737 NG and 737 MAX.

350. Boeing had a legal duty to correct these omissions and misrepresentations once made but failed to do so until it was too late.

351. Boeing made the foregoing omissions and misrepresentations for its economic advantage.

352. Boeing made the foregoing omissions and misrepresentations with the intent to induce Stakeholders and the public to rely on the representations.

353. Unaware of Boeing's omissions, SWAFA relied on Boeing's representations as true because of Boeing's superior knowledge concerning the 737 MAX, and SWAFA's inability to acquire their own knowledge concerning Boeing's representations.

354. SWAFA's reliance on Boeing's omissions and misrepresentations was justifiable as SWAFA did not have any reason to doubt the truthfulness and completeness of Boeing's representations and disclosures.

355. SWAFA were entitled to rely on Boeing's omissions and misrepresentations.

356. Unaware of Boeing's omissions, SWAFA acted in reliance on Boeing's misrepresentations including the 737 MAX in its 2013 CBA, which SWAFA would not have done

had they known the truth about Boeing's misrepresentations or that Boeing was concealing objectively material information relating to the 737 MAX.

357. Boeing's omissions and misrepresentations were the direct and proximate cause of SWAFA's damages as stated herein, which continue to accrue.

358. Such damages can be determined based on Southwest's published flight schedules that incorporate the 737 MAX versus Southwest's actual flight schedule subsequent to the grounding.

359. SWAFA are entitled to damages for their losses in amounts to be determined at trial.

**COUNT VI**  
**(Negligent Misrepresentation)**

360. Plaintiffs incorporate by reference all preceding paragraphs of this Complaint, with the same force and effect as if set forth herein.

361. Boeing marketed the 737 MAX as a variant of the safe, reliable and time-tested 737 family of aircraft, with new fuel-efficient engines and "very deliberate" design enhancements that posed "minimal risk."

362. Boeing made the foregoing omissions and misrepresentations on its website and in press releases, including, but not limited to its statements claiming that Boeing would minimize changes from the 737 NG to the 737 MAX, and that Boeing had only made changes after being assured of their safety.

363. Boeing's omissions and misrepresentations concerning the 737 MAX were misleading in that Boeing did not disclose that, as compared to the 737 NG, Boeing's use of the LEAP-1B® engines on the 737 MAX, among other things:

g. Changed the aircraft's aerodynamic center of gravity;



- h. Decreased the aircraft's stability;
- i. Created greater pitch-up tendency at elevated angles-of-attack;
- j. Negatively changed the aircraft's handling characteristics;
- k. Increased the aircraft's susceptibility to the risk of catastrophic stall; and
- l. Reliance on MCAS, a novel yet safety-critical flight control logic system with no service history that purported to mitigate the deadly risk of stall but in fact caused greater problems.

364. These representations were false.

365. Boeing made these omissions and misrepresentations knowing that Stakeholders (including SWAFA) and the public were relying on their truth.

366. Boeing knew that the foregoing omissions and misrepresentations were misleading, or recklessly disregarded their truthfulness.

367. Boeing made the foregoing representations and omissions without exercising reasonable care and competence.

368. Boeing's omissions and misrepresentations related to objectively material facts concerning the 737 MAX.

369. Boeing knew or should have known that it made omissions and misrepresentations to its customers (including Southwest), their employees (including SWAFA), and that its customers' employees (including SWAFA specifically) would likely rely upon its representations in making decisions regarding their CBA and employment with Southwest, Boeing's largest customer for the 737 MAX.

370. Boeing concealed all or parts of the truth when it had a legal duty to speak, and to inform its Stakeholders and the public concerning the differences between the 737 NG and 737 MAX.

371. Boeing had a legal duty to correct these omissions and misrepresentations once made but failed to do so until it was too late.

372. Boeing made the foregoing omissions and misrepresentations for its economic advantage.

373. Boeing knew or should have known that the foregoing omissions and misrepresentations would induce its customers' (including Southwest) and their employees' (including SWAFA) reliance.

374. Unaware of Boeing's omissions, SWAFA relied on Boeing's misrepresentations as true because of Boeing's superior knowledge concerning the 737 MAX, and SWAFA's inability to acquire its own knowledge concerning Boeing's representations.

375. SWAFA's reliance on Boeing's omissions and misrepresentations was justifiable as SWAFA did not have any reason to doubt the truthfulness and completeness of Boeing's representations and disclosures.

376. SWAFA were entitled to rely on Boeing's omissions and misrepresentations.

377. Unaware of Boeing's omissions, SWAFA acted in reliance on Boeing's misrepresentations by including the 737 MAX in its 2013 CBA, which SWAFA would not have done had it known the truth about Boeing's misrepresentations or that Boeing was concealing objectively material information relating to the 737 MAX.

378. Boeing's omissions and misrepresentations were the direct and proximate cause of SWAFA's damages as stated herein, which continue to accrue.

379. Such damages can be determined based on Southwest's published flight schedules that incorporate the 737 MAX versus Southwest's actual flight schedule subsequent to the grounding.

380. SWAFA are entitled to damages for their losses in amounts to be determined at trial.

#### **PRAYER FOR RELIEF**

Wherefore, Plaintiffs, SWAFA, further respectfully request that this Court enter judgment in their favor and against Defendant, The Boeing Company, as follows:

- A. That Defendant Boeing pay Plaintiffs, SWAFA, for the lost income they have incurred and continue to incur;
- B. That Defendant Boeing pay Plaintiffs, SWAFA, for its other losses and compensation they have incurred and continue to incur;
- C. That Defendant Boeing pay Plaintiffs, SWAFA, pre-judgment interest for the foregoing; and
- D. That Defendant Boeing pay Plaintiffs, SWAFA, for all other relief to which SWAFA may be entitled, and which this Court deems just and proper.

#### **JURY TRIAL DEMAND**

Plaintiffs, SWAFA, hereby respectfully demand a trial by jury on all issues so triable.

Dated: March 16, 2020

Respectfully Submitted,

/s/ Marvin A. Miller

Marvin A. Miller

Andy Szot

**MILLER LAW LLC**

115 S. LaSalle Street, Suite 2910

Chicago, IL 60603

Tel: 312-332-3400

mmiller@millerllc.com

aszot@millerlawllc.com

Seth A. Katz (CO 37205) – pro hac vice

Michael Mauro (CO 48009) – pro hac vice

**BURG SIMPSON ELDREDGE**

**HERSH & JARDINE, P.C.**

40 Inverness Drive East

Englewood, CO 80112

Tel: 303-792-5595

Fax: 303-708-0527

skatz@burgsimpson.com

mmauro@burgsimpson.com

Bradley R. Irwin (CO 16906) – pro hac  
vice

Roger D. Fraley, Jr. (CO 14603) – pro hac  
vice

Ken Falkenstein (CO 52307) – pro hac  
vice

**IRWIN FRALEY, PLLC**

7377 S. Revere Parkway, Suite 400

Centennial, CO 80111

Tel: 303-999-9000

Fax: 303-999-9001

birwin@coloradolawyers.com

rfraley@coloradolawyers.com

kfalkenstein@coloradolawyers.com

***Attorneys for Plaintiffs***